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THE GREEK VERB

ITS STRUCTURE AND DEVELOPEMENT

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PREFACE.

THE following work is a translation of 'Das Verbum der Griechischen Sprache seinem Baue nach dargestellt,' published in two volumes (Vol. I. Leipzig 1873, Vol. II. *ib.* 1876). For the first volume we were able to use the second edition (Leipzig 1877): for the second volume Prof. Curtius was good enough to furnish us with a large number of corrections and additions, prepared by him for the second edition, now going through the press. Professor Curtius desires to express his indebtedness for some of these to notices by Prof. A. Nauck in the 'Bulletin de l'Académie impériale des sciences de St. Pétersbourg' Tome xx. pp. 481–520 and in the 'Mélanges Gréco-Romains' Tome iv. p. 58 ff. We cannot reproduce this acknowledgment without expressing our great regret that Prof. Nauck should have thought fit to adopt in these articles a tone and language which, it might have been hoped, belonged entirely to a past generation of scholars. We have added from the second edition an important excursus as an appendix.

In the preface to Vol. I., Prof. Curtius writes:—

'I was first led to make the Greek verb the subject of a detailed examination in the following way. My work "Die Bildung der Tempora und Modi im Griechischen und Lateinischen," which appeared in the year 1846, had been for some time out of print. The progress made by the science since that time would at least have necessitated very considerable changes in a new edition. Besides this I hardly felt called upon to make a fresh examination of the structure of the Latin verb. The object, indeed, with which that work of my younger days was undertaken was to present classical scholars with a critical compendium of the

actual results arrived at by the comparative study of the verbal structure, adding thereto investigations made by myself. It seemed to me that after so long an interval I could not approach the same subject unless I treated the whole verb at once more succinctly and more in detail, and to this end I saw I should have to confine myself to the single language to which my special study has always been directed. Of course Latin, like any other cognate language, has been examined wherever it promised to throw light on Greek.

'I have taken special pains here to present as far as I could a complete list of actually occurring forms, though this was far from my object in the composition of the "Tempora und Modi." It seemed to me no disadvantage that certain sections of the present work should in consequence be little more than lists of forms. For it is of the greatest importance for the correct understanding of these forms that we should know to what extent they were current and in what periods. In the case of the formation of the present tense stem for instance all the information we had as to the occurrence of its manifold varieties was extremely defective. None of the various indexes of verbal forms, among which Veitch's "Greek Verbs irregular and defective" (3rd edition, Oxford 1871)[1] deserves still as always to be held in the highest consideration, could fully supply the need, since they were undertaken with completely different objects in view. At the same time, after Lobeck's Rhematikon, where however we have constantly to regret that the different periods are not distinguished, it is to this work and to Kühner's new edition of his "Ausführliche Grammatik" to which I owe by far the greater number of references on this head. In the case of Homeric Greek, which had always to be treated separately of course, I have, besides Seber's well-known Index, made use of a complete collection of verbal forms made by a

[1] 'I am indebted to the kindness of the author for the information that the Edinburgh edition of 1860, by which I was led to call the edition of 1871 (styled on its title-page a "New Edition") the fourth, was one in which he had no hand. Mr. Veitch recognises only three editions as authorised—those of 1848, 1865, and 1871.—I take this opportunity of mentioning a work composed with the same object, i.e. Ἀνώμαλα καὶ ἐλλιπῆ ῥήματα πεζῶν συγγραφέων καὶ ποιητῶν τῆς Ἑλληνικῆς γλώσσης ὑπὸ Α. Α. Σακελλαρίου, καθηγητοῦ τοῦ ἐν Ἀθήναις Β' γυμνασίου, Ἔκδοσις πέμπτη ὅλως μετερρυθμισμένη, Ἐν Ἀθήναις 1877, which was kindly sent to me by the author while I was engaged on this second edition.'

former pupil at my suggestion. From Hesychius's Lexicon, which I have gone through in the course of my investigations, I have been able, while rigidly excluding all foreign and doubtful matter, to extract many remarkable forms. The rich treasury too contained in Lentz's Herodian has been laid under contribution. For all that, such is the astounding wealth of forms which Greek possesses, that, with the best of intentions, I have fallen far short of absolute completeness, even within the limits here proposed. Still I hope it will now be approximately possible to ascertain the extent to which the phenomena discussed by me were in living use. It is now and then surprising to find, in the course of this enquiry, how forms, which boys at school learn as the proper and regular ones, either have no authority whatever or only occur in some out-of-the-way place, and stand quite alone.

'There is nothing so prejudicial to an insight into the real structure of the Greek verb as the notion, still widely prevalent, that every verb must admit of being conjugated throughout. In reality, not only does each single group of forms make a separate whole, but very often one such group is formed from one and the same stem many centuries earlier than the other, and—leaving the latest stratum of derived verbs out of the question—almost every verb shows us, so to speak, a separate family, with its own family history and a quite individual stamp of character. It may be doubted if there is another language which has developed this tendency towards *individuality* so far as that of the Greeks.

'Next to the formation of a complete collection of the characteristic forms from Greek itself I have made a point of comparing with them whatever forms can be directly compared from the related languages. It is no slight help towards an insight into the origin and ramification of forms of language if we can see clearly how often in two languages, e.g. Greek and Sanskrit, or even in more than two, precisely the same form has come from the corresponding stem. In the case of the present-tense formations no comprehensive attempt of this kind had ever been made. All that had been done was to point out similarities of formation without taking the trouble to consider the stems in which they appeared. It may surprise many scholars to find how extensive the agreement between the languages is, even in the

case of forms of such comparatively late stamp as the derived verbs.

'The oftener we are led by investigations of this kind into regions in which the ground is slippery, the greater the importance, I think, which must be attached to such bare collections of undoubted facts about which it is hardly possible there should be two opinions. For the etymologist I have undertaken the collection of such facts in my "Principles of Greek Etymology." The present work is intended to provide, in a similar collection of verbal forms, a firm basis for the investigation of their origin. On this head I have only ventured with some reluctance upon the very difficult questions of the genesis of verbal forms. These questions must be dealt with by analysis and combination—a province quite distinct from that of the comparison of parallel forms. I have expounded elsewhere ("Zur Chronologie der indogermanischen Sprachforschung," 2nd edition 1873) my views on the origin and developement of the Indo-Germanic verbal structure. These views, which I still hold, in spite of some amount of opposition, are naturally those on which I proceed in the present work.[2] With regard to the main questions they are the same views which began with Bopp's foundation of our science in the firm structure of his "Comparative Grammar," which were elucidated and corrected by Schleicher's systematising, though perhaps now and then too logical condensation, and may be regarded as the universal doctrine of Comparative Philology. No reasonable man will imagine that this structure is satisfactory at every point. It has its weak sides, and it is the strengthening, perfecting and correction of these to which the science must devote itself as it advances. Hard problems meet us, in which we have often to content ourselves with the indication of a greater or smaller degree of probability, and we must not fancy that we can settle every thing once for all. But I confess that the attacks lately made from different quarters on the foundations of this structure seem to me not at all likely to shake them.

'The principal works used for the second edition have been,

[2] [A statement of these views, revised by Professor Curtius, will be found in the article on the Greek Language in the 'Encyclopædia Britannica,' vol. xi. (ninth edition).]

before all, Delbrück's "Altindisches Verbum" (Halle 1874), Johannes Schmidt "Zur Geschichte des Vocalismus" Vol. II., Gust. Meyer "Die mit Nasalen gebildeten Präsensstämme" (Jena 1873).'

In the preface to Vol. II., Professor Curtius writes:—

'This second half of my description of the structure of the Greek verb has not led me so often as the first to the ultimate and most difficult questions as to the origin of the earliest Indo-Germanic verbal forms. I have had to deal rather, though not by any means exclusively, still for the most part with the completion and carrying out of primitive types by the Greeks; although these can be understood only by bringing out the special characteristics of the Greek verb from the common back-ground. Much however that bears upon this has now presented itself to me in a different light from what it did formerly; and the doctrine of the perfect especially, which in consequence of the peculiar stamp and varied ramification of this tense takes up a very considerable part of this second volume, is stated here in a manner which in many respects is new. For the perfect I have very thankfully availed myself of the researches of old pupils, of which some are collected in the "Philological Discussions published by G. Curtius's Grammatical Society" (Leipzig 1874), others are printed in the "Studien," while Windisch's description of the Irish perfect, which I have found instructive on many points, has been printed in Kuhn's "Zeitschrift" Vol. XXIII. But many other chapters too, e.g. that on the Verbal Nouns, and specially the doctrine of the Infinitive, and the description of the Sigmatic Aorist, contain views differing from those most generally adopted. I trust they may recommend themselves to the unprejudiced judgment of other investigators. I cannot, I think, be charged with having clung obstinately to doctrines which I previously advanced. On the contrary, I believe that I have never refused to accept more recent views and tendencies, so far as they appeared to me at all justified, without however deviating from the fundamental principles which I followed in my first discussion of the Greek Verb thirty years ago.'

The translation of the first volume has been executed by Mr. England, that of the second by Mr. Wilkins, but every page has

been carefully revised by us both, and we are jointly responsible for the whole. The very full indexes to the original work were prepared by Dr. Vaniček of Neuhaus: the task of adapting them to the present translation, involving as it did the verification and alteration of more than 5,000 references, has not been a light one: but it is hoped that they will prove of great value in facilitating the use of the book.

The numbers in the margin refer to the pages of the second edition of Vol. I. and of the first edition of Vol. II. in the original. It may be convenient to notice that the second edition of Vol. I. contains eight pages more than the first, while the second edition of Vol. II., in consequence of the insertion of the excursus at p. 33, will probably contain about twenty pages more than the first. Hence e.g. a reference to p. 206 of Vol. I.[1] will answer to p. 211 Vol. I.[2] (p. 143 of the translation): p. 370 Vol. I.[1]=p. 376 Vol. I.[2] (p. 258 of the translation): p. 100 Vol. II.[2]=p. 84 Vol. II.[1] (p. 329 of the translation).

The kindly welcome given to our translation of the 'Principles of Greek Etymology' leads us to hope for an equally favourable reception for a work which has been universally recognised as a not less important contribution to the cause of a sound and scientific knowledge of the Greek language.

MANCHESTER:
Christmas, 1879.

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THE GREEK VERB.

CHAPTER I.

INTRODUCTION.

The term verb is not always used by grammarians in the same sense. 1
We hear, on the one hand, of the verb in a sentence, and ἄειδε or ἔθηκε is said to be a verb; on the other, the same term is used to denote the numerous forms which along with this ἄειδε or ἔθηκε belong to one stem, and we hear of the verb ἀείδειν, or the verb τιθέναι. Dionysius Thrax used the word in the former sense when he thus defined the notion of the verb: ῥῆμά ἐστι λέξις κατηγόρημα σημαίνουσα (Bekker, 'Anecd.' ii. 672). Schoemann, in what he says about the nature of the verb, at p. 16 of his treatise on the Parts of Speech, agrees with this definition. It is in the power of making an assertion, i.e. in the union of a subject with a predicate within one and the same word, that the peculiarity of this, as opposed to other parts of speech, consists. For our present purposes we shall have to distinguish more carefully between these two uses. We do not call ἄειδε or ἔθηκε verbs, but verbal forms, and only use the term verb collectively, understanding by a verb a more or less extensively ramifying system of forms, all of which possess the power of making an assertion, and come from one stem, or are at least held together by the bond of a common meaning. Again, all Greek verbs join to form that higher unity, which, as the sum and substance of the whole mass of kindred phenomena, we may call 'The Greek Verb.'

If we proceed to consider a single verb or system of verbal forms 2
from a, so to speak, statistical point of view, this system at once falls into two main groups, which have at all times been kept distinct, though the origin and nature of this difference may not have been understood: these are the *verb finite*, and the *verb infinite*. It is only the forms of the verb finite which are capable of expressing a *complete* assertion, or, in other words, of making little sentences which can be conceived as standing alone. In the forms of the verb infinite there is always an *incompleteness* in the assertion, which needs to be supplemented by a form of the first kind. Infinitives, participles, and verbal adjectives bear the form of nouns, and belong by right of origin and structure in most instances to the class of noun-forms. But since the language as preserved to us makes a distinction of use between these forms and those called noun-forms, in the strict sense of the term, and since they have several characteristic distinctions of form in common with the verb proper, they make

an integral part of the verbal system, and ought not to be considered apart from it—a fact not always recognised in Comparative Grammar. Their double nature was well set forth in the old name μετοχή (participium); the only pity is that this name was confined to a part only of the group. We shall find it best to speak of the whole class as *verbal nouns*.

The elements of meaning which find expression in the Greek verb finite are of six kinds: 1), Person; 2), Number; 3), Relation borne by the action to the subject, the difference, i.e. between Active, Middle, and Passive, so well named by the ancients διάθεσις; 4), *Kind* of Time (*Zeitart*), by which I mean the varieties of the continuous, momentary, and completed action perceivable, i.e. in ἔλυε, ἔλυσε, and ἐλελύκει respectively; 5), *Grade* of Time (*Zeitstufe*), or the difference between present, past, and future; and 6), Modality. The verbal nouns have no means at all for expressing the first element, but they can all express the third and fourth. Of the fifth, the grade of time, they never had any mark,
3 though, in the case of the participle, a peculiar shifting of function has enabled the distinctive mark of the *kind* to do duty for that of the *grade* of time; and besides this, the latest born of the tense-systems, that of the future, has produced verbal nouns of its own. Participles are of course the only verbal nouns which can mark number (2), and, being real adjectives, they mark gender and case as well. Even modality (6) is not entirely absent from the meaning of Greek verbal nouns; the particle ἄν is added to infinitives and participles with a use analogous to that with verb-forms proper, and in this way some modal differences at least find expression outside the verb finite.

The array of forms, which this calculation shows the complete verbal system in Greek to possess, is astonishingly large. As it is seldom or never seen in all its force, it will be worth while to pass the long list under review. Considered genetically, the whole of the forms of the Greek verb divide themselves into *seven* groups, which, as all the forms in a group have a common unchangeable kernel or stem, we refer to *seven* stems, or, more accurately, tense-stems. In reviewing these in this statistical manner, we will for the time preserve the order given in my 'School Grammar,' i.e.: 1), *Present-stem*; 2), *Strong Aorist-stem* (*Aor. II.*); 3), *Future-stem*; 4), *Weak Aorist-stem* (*Aor. I. act. and middle*); 5), *Perfect-stem*; 6), *Strong Passive-stem* (*Aor. II. pass.*); 7), *Weak Passive-stem* (*Aor. I. pass.*). Of these seven groups those called strong and weak are seldom both developed in the same verb, so that, with comparatively few exceptions, each verb can actually show only *five* groups, the active and middle aorist being either strong or weak, and the passive stem likewise. These five groups, however, may be found entire, but for a few gaps, in a great number of verbs, and so far in current use that we may confidently affirm that there is no single form belonging to one of these groups that a Greek, when Attic was at its prime, could not have used if he liked.

That our present attempt at reviewing the numerical strength of this store of verb-forms may give us no deceptive phantom results, but a real
4 idea of the number of actually occurring forms distinct in sound and meaning, I shall proceed on the following principles. In the first place, all very rare forms, e.g. the first person dual of the middle tenses, the feminine dual of the participles, the moods of the active perfect, have been left out altogether. Next, all forms which though of different

meaning are phonetically identical, e.g. the nom. and acc. neuter participles, and even the phonetically identical acc. sing. masc. and nom. and acc. plur. neut. of the active participles (e.g. λύοντα), and the identical acc. sing. and nom. and acc. s. neut. of the middle (e.g. λυόμενον), always count for a single form. But where some classes of verbs or certain dialects have varieties of formation, or where the examination of their origin gives us clear evidence that there was a variety on Greek ground, in such cases no later or accidental identification has made us reckon as one what the language occasionally does, or at one time did, regard as distinct. For instance, ἔλυον is reckoned once as 1st pers. sing. and once as 3rd pers. plur., for the Dorians distinguished between ἔλυον and ἐλύον, and all Greeks between ἔφην and ἔφᾱν or ἔφασαν. Λύω, it is true, is 1st sing. for both ind. and conj., but as there are in Homer forms in -ω -μι for the conj., there was once a distinction between the two forms. Λύῃ is in Attic at once 3rd sing. conj. act. and 2nd sing. conj. middle; but Homer distinguishes between λύῃσι and λύηαι, and even Attic at one time between λύῃ and λύει. The aor. I. inf. act. and the 2nd sing. imp. aor. I. mid. are at any rate occasionally distinguishable by their accent, e.g. παιδεῦσαι and παίδευσαι—reason enough for counting each form separately. On the same principles the 1st sing. fut. act., e.g. λύσω for λυσίω, has been distinguished from the 1st sing. aor. I. conj. λύσω. On the other hand, it cannot be shown that there ever was a phonetic distinction in Greek itself between λύετον, λύεσθον as 2nd dual ind. and imperat., or between λύετε, λύεσθε as 2nd pl. of the two moods, and therefore such forms are only counted once.

In this way we get the following result.

From the present-stem are formed—

	Pr. Ind.	Pr. Conj.	Pr. Opt.	Pr. Imp.	Impf.
Act.	7	7	8	4	8
Mid.	7	7	8	4	8

that is, 68 forms belonging to the verb finite. Besides these there are 52 infinitives and 2 participles with 19 each, that is, 40 forms of the verb infinite—in all 108.

From the future-stem come—

	Ind.	Opt.
Act.	7	8
Mid.	7	8

that is, 30 forms of the verb finite, and then there are 2 infinitives and 2 participles with 19 case-forms apiece. Altogether from the future-stem 70 forms.

From the aorist-stem, either the strong or the weak, come—

	Ind.	Conj.	Opt.	Imp.
Act.	8	7	8	6
Mid.	8	7	8	6

In addition to these 58 come the 40 forms of the infinitives and participles—in all 98.

Under the perfect-stem we omit entirely the rare conj., opt. and imp. of the active, but not the imperative middle, which is more frequent. We thus get—

	Perf. Ind.	Imper.	Pluperf.	Fut.
Act.	7		8	3
Mid.	7	4	8	Ind. 7, Opt. 8

altogether 49 forms of the verb finite; and to this have to be added 3 infinitives and 3 participles—in all 109.

The passive-stem, strong or weak as the case may be, gives—

Aor. Ind.	Conj.	Opt.	Imp.	
8	7	8	6	} 44
Fut. Ind.		Opt.		
7		9		

which, with the 2 infinitives and the 38 participial forms, give a total of 84.

The verbal adjectives, which belong to no tense-stem, produce 38 case-forms.

In all, then, we may get from a complete verb—

249 forms of the verb finite, and
258 forms of the verb infinite

altogether 507.

6 A glance at the Latin verb is enough to show us how much poorer it is than the Greek. The Latin verbal forms may be referred to two tense-stems, of which the second, that of the perfect, does not extend beyond the active.

The present-stem has—

	Ind.	Conj.	Imper.	Imperf. Ind.	Imperf. Conj.	Fut.
Act.	6	6	5	6	6	6
Mid.	6	6	4	6	6	6

altogether 69 forms of the verb finite, to which must be added 2 infinitives and a participle with 8 different case-forms, and the gerundive with 12 case-forms[1]—that is, 91 forms in all. The perfect-stem has—

6 forms for the indicative perf.
6 „ „ conjunctive perf.
6 „ „ indic. pluperf.
6 „ „ conj. pluperf.
1 form for the fut. perf.

for it is only the 1st pers. sing. that is different from the perf. conj.—in all 25—which with the addition of the inf. act. make 26.

Besides these there is the fut. part. act. with its 12 forms, the perf. pass. part. with the same number, and the 2 supines—in all 26.

The verb finite reckons altogether 94 forms, the verb infinite 49—total 143. Everything besides is periphrastic.

In Gothic the resources are still more meagre. We can here only compare the verb finite, as the declension of the participles is so much more complicated that their sum cannot be clearly stated. The strong verb in Gothic as in Latin falls into two groups, here called present and past. The present group comprises in the indicative 7 forms, the

[1] I have counted the same form only once when it does duty for more than one case, as e.g. *legendi* for gen. s. and nom. pl.

3rd sing. and the 2nd plur. being identical, in the conjunctive 8, in the imperative only 1, as 3 forms are identical with the corresponding indic. forms; then there are 6 middle forms. The past has 8 for the indicative and 8 for the conjunctive. The entire sum is therefore 38.

The language that comes nearest to Greek in wealth of forms is 7
undoubtedly Sanskrit. Here all the three numbers have their three persons complete, so that each mood and tense shows 9 forms. Of moods and tenses there are 9, as the tenth system of forms, that of the participial future, being periphrastic, cannot be reckoned here. We thus get 81 forms of the verb finite in active, middle, and passive respectively — in all, therefore, 243, as against the 268 of Greek. Then there are the conjunctive forms and several optatives peculiar to the dialect of the Vedas, in which dialect, however, many of the later forms are wanting. Still the verbal system in Indian is on the whole, as Delbrück remarks ('Altindisches Verbum,' p. 15), not very sharply defined, so that it hardly admits of this kind of calculation. Owing to the fact that many verbs have alternative forms of the present-stem freely current side by side, the number often mounts up excessively. There are, for instance, from the rt. *kar* make, according to Delbrück, 336 forms of the present verb finite alone in Vedic Sanskrit. At a later stage again the language has a much smaller store to show than Greek. No doubt it would be the other way if we reckoned the causative, intensive, and desiderative formations as well. These count in Sanskrit grammar for integral parts of the regular verbal inflexion, whereas in Greek, where they are far less numerous, they are separate verbs. Since each of these derived formations goes through all persons in the three voices, and has only the perfect formed by periphrasis, for every group of 81 forms of the primitive verb we get one of 72—in all, that is, 216 for each derived formation, and 648 for all the three. Add to these the forms of the primitive verb, and there results the gigantic total of 891 genuine verbal forms. Still we should no doubt go wrong if we treated each and all of the forms in this tabulated grammatical system as actually existing. The whole list may be found conveniently arranged in Max Müller's 'Sanskrit Grammar' (London 1870, p. 245 ff.). This much may, I believe, be positively asserted, that in the number of verbal forms in living use Greek hardly comes behind Sanskrit. This is in part connected with the far finer distinctions of meaning which are to be found 8
in Greek. Without doubt both tense and mood systems are in the latter language more developed and more compact.

If after this detailed survey of the extensive stock of Greek forms we now try to understand how all this wealth originated, the first certainty we can arrive at is that its formation was a process of time. Of this fact we get some few but important indications from the period of the language's history, which may in the narrower sense be called historic, that, namely, which has left us written specimens. One of the most ingenious formations of the Greek verb, the weak passive future, is entirely wanting in Homeric Greek, and of the strong passive future there is but one certain instance, *μιγήσεσθαι*, which only occurs at K 365, for *δαήσομαι* has not the right meaning. These forms, therefore, were clearly not made till the time subsequent to that in which the Homeric Epic was in its prime. They were evidently made to supplement the long current passive aorists and on the analogy of the other futures. There had long

been by the side of ἔβη βῆναι a βήσομαι, by the side of τλῆναι τλήσομαι, by the side of γοήμεναι γοήσεται—why should not μιγήμεναι have μιγήσομαι? and later on, why should not κινηθῆναι have κινηθήσομαι? especially as these forms gave greater facility for the expression of passivity than was afforded by the middle forms μίξομαι κινήσομαι. The future optative likewise is unknown to Homeric Greek. For no doubt La Roche is right in altering the completely isolated and not even well attested ἀλύξοι at ρ 547, and reading οὐδέ κέ τις θάνατον καὶ κῆρας ἀλύξει after the analogy of other passages. This late growth is very significant, and teaches us much of the nature of the verb. While the system of cases not only receives no addition whatever in the period known to us by written records, but is actually curtailed, and while very considerable losses can be discovered within the limits of Homeric Greek, in the verb the power of putting out new shoots lasted much longer. In the use of the cases then it is remarkable to find older and nicer distinctions of meaning often replaced by a less delicate accuracy, and one case assuming the functions of another as well as its own. With the verb,
9 however, the case is the reverse; here we can, so far at least as tenses and moods are concerned, discern here and there the stamp of a greater delicacy and a more thoroughgoing completeness. We find analogy to be the means by which a still living creative force attains its ends, and we may conclude that analogy was also a material element in producing the results of yet earlier times. The impulse to carry through to the end what is once begun, to fill up the gaps in what was at first an isolated group of forms after the pattern of older types, is one which is specially characteristic of the Greek language. Hence it was comparatively late that the marvellous system we see before us reached its full completeness. By the side of this process of completion of the whole we can also trace a few less important innovations as they arise, e.g. the formation of the aspirated perfect, quite unknown to Homeric Greek, the extensive use of the κ in making the active perfect, of which again we see only the beginnings in Homer. Other Greek dialects are of considerable use in many directions in helping us to ascertain what we can of the phonetic relations of an older time before the division into dialects had taken place. But these are all isolated phenomena compared with the mass of forms which are unquestionably as old as Greek itself, and which prove, by the wide extent to which they accord with phenomena in related languages, that they were the common inheritance of all or at any rate several of the Indo-Germanic tongues.

The task, therefore, which we have to perform, if we are to understand the structure of the Greek verb, can only be done by going back to the relations and conditions of the language in a pre-Greek age. The main parts of the structure were the work, not of Greeks, but of Indo-Germans far away in antiquity. Our investigation therefore, whether we are examining a single phenomenon or constructing a whole out of many, must always be of two kinds—*reconstructive* and *constructive* as well. The former is the easier task. Reconstruction has to take the forms of the several languages and conclude from them what the primitive Indo-Germanic form was, and to obtain by a systematic combina-
10 tion of such primitive forms a complete image of the structure such as we may conjecture it to have been before the first encroachments of defacement and decay. On the side of *construction* we have to ask with what

notion was this primitive structure invented—how did it arise? In so doing we try to transport ourselves in thought to periods which are still more ancient, when the language bears still less direct resemblance to that of later times. A clear perception of this twofold nature of our task is indispensable. There are cases where the two sides are, so to speak, at odds, where it is a question whether the surplus shown by one language or dialect compared with others is of primeval growth, or an extraneous imitation of some other similar form—a question we shall have to raise, e.g. in the case of the full termination -$\mu\iota$ in the 1st sing. optative. In the same way it is sometimes not easy, in the case of a sound by which a form in one language is distinguished from the form equivalent to it in another, to see at once whether this sound has always had a share in marking the significance of the form, and consequently is to be explained constructively, or whether it may not have arisen through a later dulling and special, purely phonetic development. In the latter case a reconstruction is necessary before we can arrive at the older sound. Hence, though in theory it may be possible to keep these two sides distinct in the treatment of individual cases, it is practically inexpedient. What is of real importance is rather that we should never lose sight of either. Still, since the examination of the details of the Greek verbal structure cannot fail to be a distraction to the due consideration of the whole, and as at the same time it is of great importance that we should view the whole collectively, it will be expedient to summarise here, by way of introduction, the most essential points of what seems to me ascertainable about the gradual origin of that verbal system which we may regard as already complete before the separation of the Indo-Germanic languages. To this may well be added a short examination of such objections as have been raised against some of the main points in this collective view, and a short estimate of the interpretations—some of them diametrically opposed to each other—which have been suggested by its opponents in its stead.

To begin then with the positive part of these considerations; of this much we may be sure, in the first place, that the Indo-Germanic verb, so far 11
as we can by reconstruction arrive at its fundamental outlines, no more came into being all at once than did the Greek. It did not begin by being a ready-made system of all kinds of form, each with its clearly defined function assigned to it at its birth. Every attempt to conceive of the verb as a definite entity, after the fashion of the philosophising grammarians of earlier times, or to show how it needs must follow this pattern and no other, is a mistake. This huge system of verbal forms, perhaps the most marvellous creation of the language-making mind of man, is a *stratified* formation. The science of language has long devoted its attention to the right discrimination between these various strata of forms lying one above the other, of which the younger always presupposes and is qualified by the older. I have discussed these problems before in my treatise, 'Zur Chronologie der indogermanischen Sprachforschung,' 2nd edit. Leipz. 1873, but I must here repeat my main points.

All formal structure in the languages of our stock consists essentially in the union of two elements, one with meaning and the other without; that is, to adopt the usual phraseology, in the union of verbal roots with pronominal stems. Of this union two kinds are possible. Either it is *attributive*, that is, the pronominal stem is added to the more significant root with the same force with which at a later stage of the language an

adjective or pronoun is said by grammarians to be joined attributively to a substantive: that is, *ag-a* (Gk. ἀγ-ό(-ς)), *ag-man* (Lat. *ag-men*) is like ὁ ἀνήρ, or οὗτος ὁ ἀνήρ. The added pronoun has here no other force than that of pointing, like a local adverb '*there*,' to the notion expressed in the root, and bringing it into prominence just as an article might. This kind of union is the main source from which arise the formative suffixes and some of the case suffixes, especially those of the nominative and accusative. The other kind of union is the *predicative*, the essence of which is that the added pronominal stem does duty as subject, and consequently turns the significant stem to which it is added into the predicate. In the clear separation of the predicative connexion from the attributive, while in their origin the two were hardly
12 distinguishable, lies the *chef d'œuvre* of the Indo-Germanic formal structure. By the more detailed arguments of the treatise above mentioned I believe I have shown that the predicative connexion was probably the one that was developed first in this stock of languages. Now herein lies the germ of the verb. When once a root like *da* was united to a pronominal stem like *ta* in such a way that this combination *da-ta* meant *that man giver*, or *he giver*, and nothing else, a verbal form had been made, and when presently corresponding forms were made for the other persons too, the primitive forms being *da-ma*, *da-tva*, there existed a set of such forms, a small paradigm, with the consciousness of their inter-connexion as a necessary consequence. And as men's minds were already awake to the necessity of avoiding confusion, and care was taken to keep these forms distinct in sound from the attributive compounds, the verbs as a separate part of speech now existed once for all. The further steps taken before the end of this primitive period,—the expression of the plural by the union of several pronominal elements, and the expression of the middle voice by a different combination of the same, the prefixing of yet another pronominal stem, the augment as it is called, by which the grade of past time was marked off clearly from the grade of present,—all these we shall see more clearly when we come to the examination of the details. What we have to do here is rather to get a bird's-eye view of the process of development as a whole.

This first stratum of verbal forms thus given in outline comprehends only such forms as occur, say, in the present indicative and imperfect of the Greek verb φημί. There is only one verb-stem here, and that as yet quite a simple one. Next to the indicative apparently the imperative was formed, as we shall see further on, and its characteristic mark lies, as in the indicative, only in the personal terminations. But of any other mark of distinction of mood or of the kind of time there is not a trace. The capital gain of the first verbal period is essentially this, that there were now two sets of clearly stamped personal terminations for active and middle, and an augment. These possessions were lasting, and the
13 distinctions thus struck out were made use of in all subsequently formed strata. The augment, where it was wanted, at the beginning, and the personal terminations at the end of the word made, as it were, the firm framework for all new productions whatever within the verb finite.

It is at this point that the language appears to have made use, very early in its progress, of a means which it employs in the most varied ways for the emphasising of a syllable, namely, repetition or reduplication. Instead of the simple stem, e.g. *da*, there might appear within the same

verbal framework the reduplicated stem, e.g. *dada*, and so instead of *da-ta* *dada-ta*; and, as this happened right through all the forms, there arose a twofold series: *da-ma*, *da-tva*, *da-ta*, &c., and *dada-ma*, *dada-tva*, *dada-ta*. These two series could hardly fail to be distinguished in meaning. In many cases the difference was this, that the first series was employed to denote momentary action, the second with its fuller forms to denote continuous. Here then we have the first materials for marking what I have called the kind of time.

Any further formative power therefore had hardly room to exert itself either at the beginning or end of the word, but had to confine itself exclusively to the interior. If we would understand other expansions, we must remember always that the verbal stem forms the predicate to the shifting subjects denoted by the terminations. Now this predicate may in a certain sense be compared to the later noun-stems, although quite at the beginning—that is, before the creation of verbal forms—the distinction between noun and verb did not exist. No doubt every rendering of primitive Indo-Germanic in language of a later development can be only approximative; for there is in the essence of this oldest mode of expression an indistinctness which must of necessity give way to a greater distinctness in the case of a language which has been actually handed down by tradition. But if we are conscious that we are only very imperfectly reproducing the real meaning of those primitive formations, we may perhaps render *da-ma* by *give I*, *da-ta* by *give he*, and conjecture that the predicative syllable gradually acquired a force which was not very different from that of the afterwards clearly distinguished participle or nomen agentis, e.g. *giving*, *giver*. The idea 14
that a copula is needed here appears completely untenable even when viewed from the position of a later development of the language; for sentences like *οὐκ ἀγαθὸν πολυκοιρανίη* have not been wanting in any period, and no doubt they were for a long time the only kind of predications in use.[2] The next expansion of verbal forms then was brought about, we conclude, by way of the more elaborate specialisation of the forms and functions of the predicate. The means used was exactly the same as in the case of the noun-stems just mentioned, i.e. *expansion of the stem*. As noun-stems, even in periods of the language which are known to us, appear now without any suffix, now with several, so the verb-stem can be used without addition as well as with the addition of a suffix. The commonest and shortest suffix is the vowel *a*.[3] Instead of attaching the personal terminations directly to the rt. *ag* the noun-stem *aga* is formed from it, and this *aga* is then connected, e.g. with the sign of the third pers. sing. *ta*, later *ti* (*aga-ti*=*ἄγει*, *agit*), in the same way in which later the sign of the nominative case is added to the same stem attributively (*aga-s*=*ἀγό-ς*). An imaginable 1st pers. plur. *ag-mas* would bear to the actually deducible *aga-mas*=*ἄγομες*, *agimus*, the same relation as that borne by the Lat. noun-stem *ag-men* to an *agi-men*

[2] [Cp. Roby's *Latin Grammar*, ii. p. xxii.]

[3] Fick's attempt to dispute the existence of the suffix *a* (*Beitr. z. K. der Indo-Germ. Sprachen*, vol. i. p. 1 ff.) seems to me unsuccessful. Nor can I see what gain is expected to result from dividing, e.g. **bha-ra* instead of *bhar-a*, since it makes both syllables quite unintelligible. There is nothing to prove the priority of the verbal form. It would be just as lawful to deny that *na* and *nu* are nominal suffixes.

which the analogy of *regi-men* will readily suggest. These *a*-stems so outgrew the older stratum in numbers, as time went on, that they decidedly formed the rule and turned the first stratum into a group of more or less anomalous exceptions.

The original property of forming stems possessed by this *a* served to give to the stem still more of the character of a noun, and thus to mark the action denoted by it as a continuous, lasting one. This
15 explains the fact that this *a*, represented in Greek by ε or ο, and lengthened in the 1st sing. to ω, belongs especially to the present-stem—that is, to that group of forms intended to express the action in its extent and duration. By the side of this *a* appear two more expansions of stem which a comparison of the related languages shows to be primitive, i.e. the syllables *na* and *nu*, about which little else can be said than that they are used to make other stems beside verb-stems. The syllables in the middle of σκιδ-να-μεν, ὄρ-νυ-μεν are compared to the stem-forming elements in ὕπ-νο-ς (=Skt. *svâp-na-s*, Lat. *som-nu-s* for *sop-nu-s*), in the Skt., Goth., and Lith. *su-nu-s* son, in the Skt. *dhṛshṇú-s* bold, with which we may directly connect *dhṛshṇṓ-mi* I am bold (rt. *dharsh*=Gk. θαρσ). It is hard to see any peculiarity in these expansive syllables distinguishing them from the vowel *a*. Nor is it easy to find any further points of analogy between special forms of present-stems and noun-stems of a similar grade of formation. After these forms had established themselves, nominal and verbal stem-formation went each their own way. The intrusion of these stem-forming syllables into the framework of the verb can only be explained by supposing that at the time of its occurrence the forms had not yet completely set, so to speak, and that there still existed a sense that the terminations were the subjects and the stem the predicate. Of marks of case or number these noun-forms show not the faintest trace, and hence we conclude that the inflexion of the noun arose later. It is only in the period of stem-formation that the verb and the noun have anything in common. In this both are alike. But as soon as the noun-forms turned themselves by fresh suffixes, and especially by case-terminations, to polysyllabic formations, they became wholly unfit to be made straight into verbs.

Reduplication is an internal, and the attachment of suffixes an external expansion of the stem. But the two methods may be combined. The stem that has been expanded externally may be inwardly strengthened as well. We find reduplication and lengthening of the stem-vowel side by side with the attachment of a suffix, especially of an *a*, and the latter, i.e. lengthening or intensification, becomes an important
16 distinction between different tense-stems. When a distinction arises between a stem *bhuga* and *bhauga*, *lipa* and *laipa*, we have again a twofold series of forms, and to the old binary stem-formation (the simple and the reduplicated) is added a new means of distinguishing continuous action (φεύγειν, λείπειν) from momentary (φυγεῖν, λιπεῖν). Meanwhile reduplication, sometimes in conjunction with the suffixed *a*, sometimes without it, furnishes the means of expressing the more intense, the completed action, and thus when specially developed becomes the source of the perfect tense. All forms characterised by the expansion of the stem by a suffix we may distinguish from primitive forms under the name *thematic*. But in Greek grammar it is advisable to restrict the term thematic to those forms which show the vowels ε (η, ει) and ο (ω, ου) in regular interchange, or in other words, which belong to what has always

been called the conjugation in Ω. This same interchange of vowels may be seen in the conjunctive throughout, and this is enough to show that this mood is a product of the period we have just been describing. But since a portion of the so-called verbs in MI follow, as we saw, in their present stems in *-να* and *-νυ* the same principle of formation, the term thematic is found inadequate. We shall find it more correct to call this class, as opposed to the primitive or *radical stratum*, the secondary, or—in so far as we here use the word stem in the sense of the already moulded and modified stem—the *stem-stratum*.

Besides these, however, there is yet a *third* group of verbal forms, the analysis of which shows fresh elements in addition to those common to all verbal forms alike. The *σ* in ἔ-λυσα and λύσω, and the *θ* in ἐλύθην do not belong to the root, nor can they be compared with the expansive stem-suffixes used in the verb after the analogy of noun-stems. No noun-stems show anything corresponding to these elements. The source from which noun-suffixes are drawn is pronominal stems, but with these the syllables in question have little or nothing in common. Their origin must therefore be sought elsewhere. Bopp in his time recognised in them *auxiliary verbs*, and accordingly regarded the verbal forms so originated as *compounds*. This last expression, now in universal use in comparative grammar, must be taken, it is true, in a limited and special 17
sense, since in the fullest sense of the word all verbal forms are compounds. But whereas in *φη-μί*, *δείκ-νυ-μεν*, *λείπο-μεν* we have a *single* verbal stem in connexion with one or more pronominal stems, there are in *ἐ-λύ-σα-μεν*, *ἐ-λύ-θη-ν* at least two verbal stems, and we can thus call the latter compound verbal forms with the same propriety as *λογογράφο-ς*, *λυσί-πονος* can be called compound nominal forms. Still, to denote them more exactly, we shall find it better to use the more significant expression *auxiliary forms*, or *auxiliary stratum*.

This third stratum of necessity presupposes the other two; for if there were no verbs there could be no auxiliaries to use. Auxiliaries are nothing but verbs which have lost their full meaning. It is the rule in language that the full, the significant, and the lifelike precedes that which is empty, inexpressive, and lifeless; and every verb that has degenerated into a shadowy auxiliary must have first enjoyed full powers and an independent life of its own. Of this the auxiliary verbs in every language afford the clearest proof in their etymology. In periods of which the language has come down to us verbs which originally had most clearly defined meanings, such as stand (*stare*, Fr. *été*=*status*), remain, become (Germ. *werden*, orig. turn), to be bound (Germ. *sollen*), have, dwell (Goth. *wisan* [Eng. *was*], Skt. rt. *vas*, dwell), have become mere auxiliaries, and are sometimes nothing more than a copula. The Indo-Germanic tongue must have possessed at least one verb that had degenerated into a copula before the separation of the languages, i.e. *as-mi* I am. It had, however, other verbs as well, most likely, which already had such small specific force that they could be used to express an action by conjunction with another stem, there being no doubt a shorter way of saying the same thing by the use of one stem only. We can, however, distinguish clearly the first and second strata in the inflexion of the auxiliary-forms. The aorist *ἐλύθην* corresponds to *ἔθην*, that is, the auxiliary element here is primary or radical in its inflexion. *Ἔ-λυ-σα*, on the other hand, like the simple *ἔα* for *ἐσα*=*eram*, shows an expanded stem having the *α* added to its root. There must have long existed an

ἐσα, or rather, as the whole formation belongs to the Indo-Germanic
18 period, an *asa*, before ἔλυσα arose. We see from this that the third stratum presupposes both the first and the second. The rt. ἐς, moreover, must, before entering into this combination, have passed from the full meaning breathe, live, which it is highly probable it first possessed, to the empty one which makes us give to εἶναι the name of verb substantive, or even simple copula. There must in fact have already existed a verb substantive, inflected according to the rule of the first or second stratum, before the forms of the third stratum arose.

If these hypotheses are granted, there is nothing extraordinary in our theory. Every form of the verb finite is a little sentence. Up to this time speakers had been content with sentences *without* a copula, in which the connexion between subject and predicate was expressed by the mere juxtaposition of the two, and now it was extremely natural to follow the analogy of sentences where the copula stood separate, and have a copula expressed inside the verb itself. While ἔδον, i.e. *a-da-nt*, translated into the language of later times, would be *tum dantes*, ἔδο-σαν, i.e. *a-da-sa-nt*, would be *tum dantes erant*. Two points only must be presupposed: first, a kind of fluidity about the verbal forms, in consequence of which the sense of the origin of the predicative syllables and their analogy to noun-stems had not yet been lost; and secondly, an absence of marks of case and number at the time that the combination took place. An uninflected *dik*, uniting in itself the meanings *showing* and *show*, could easily combine with a following *asmi* I am, to make *dik-asmi*, shortened *dik-smi*; so, too, *asa-mi*, the later by-form of *as-mi*, could combine with the same nominal stem to make *dik-asami*, shortened *dik-sami*, from which was formed the past tense *a-dik-sam*, i.e. Skt. *ádiksham*=ἔδειξα.

Besides the rt. *as* we find two other verbal roots used in the same way: the rt. *dha* do, and the rt. *ja* go. Later periods give us instructive instances of the periphrastic use of these two roots. Inasmuch as every verb expresses an action, every verbal form can be replaced by the periphrasis of an abstract noun and the verb 'do.' The infinitive occurs oftenest in this connexion; cp. e.g. the German *er thut kommen*, the English *how do you do?* The rt. *ja*, on the other hand, is exactly
19 adapted to express circumstance, inasmuch as *go* is equivalent to *go about*, *versari in aliqua re*. Standing separately it has this force in the Lat. *infitias ire*, and the German *spazieren gehen* (*to go a walking*). Inasmuch, again, as there is in *going* the idea of motion towards a goal, *go*—cp. the Fr. *je vais faire*—can acquire the meaning *strive*, *pursue*, and thus become the source of marks of mood and of the future tense. Finally, it can be used for the passive, as we have it used in *venum ire*, as the opposite of *venum dare*. For *go* is an intransitive verb, and as such stands in a kind of opposition to *doing*, and the notion 'to get into such and such a plight,' supplies a link between it and the expression of passivity.

Since two or more auxiliary elements of this kind can be combined, there arises the possibility of a large number of forms which partly serve to supply the deficiencies of the older strata, especially in cases where phonetic difficulties have arisen, partly offer an opportunity of conveying various meanings which the means at hand are quite or partially unable to express.

In the course of time this third stratum outgrew the two earlier ones.

Of course the origin of the auxiliary elements was soon lost to view, just as in the second stratum the sense of the way in which the stems had been expanded had soon disappeared. But these syllables, beginning as they did with a consonant, and capable of symmetrical adjustment to all kinds of stems, met the wants of what were relatively late periods. There was not so much force wanted for their articulation nor so great a nicety of distinction required as there was for the production of the more delicate and finer formations of a previous age, which, now that they had themselves provided a pattern for the younger generation of formations, became more and more antiquated, though fortunately they were too numerous ever to become entirely obsolete.

This short sketch of the gradual genesis of the Greek verbal forms is on the whole in accordance with the views which since Bopp's time have obtained among comparative grammarians, and which have only been modified in single points here and there by further investigations, among which those of Schleicher may be named as the most conclusive and comprehensive. It is scarcely surprising that in so difficult problems there 20
have been differences of opinion on certain points. Still, since the appearance of Bopp's 'Conjugations-system' the main outlines have received general recognition. Such independent enquirers as Pott, Benfey, and Schleicher have been here completely at one with Bopp. Jacob Grimm, who is repeatedly spoken of by the below-mentioned opponent of the received theory as opposed to Bopp, expresses himself ('D. Gr.' i. 1051 ff.) as essentially of the same opinion. Those who treat the philosophical side of language take the same view. For this it is enough to refer to W. v. Humboldt's treatise 'Ueber das Entstehen der grammatischen Formen' ('Ges. Schr.' iii. pp. 290, 297), and to Steinthal's 'Charakteristik der hauptsächlichsten Typen des Sprachbaues' (p. 285 ff.). As we shall see later on, even before Bopp, Buttmann was of the same view with respect to one of the main points, i.e. the origin of personal terminations from suffixed pronominal stems. This really remarkable unanimity has been met by a very decided opposition from two sources: first from Westphal in his 'Philosophisch-historische Grammatik der deutschen Sprache,' and later in his 'Methodische Grammatik der griechischen Sprache,' in both of which books the view we have adopted is called 'die Bopp'sche Agglutinationstheorie,' and most emphatically denounced as erroneous. The second attack has been made by H. Merguet, who in his book 'Die Entwickelung der lateinischen Formenbildung' (Berl. 1870) makes radical objections to several of the main points.[4] A scientific opposition to widespread views is itself a useful stimulus and may lead to greater 21
certainty if it can be shown to be ill-grounded. I think therefore that it is worth while to make a brief examination of these objections, and for

[4] Merguet has since given repeated expression to his views, but, as far as I can see, without going more deeply into the question, or subjecting the views he combats to a thorough examination. I may refer specially to his latest work, *Ueber den Einfluss der Analogie und Differenzirung auf die Gestaltung der Sprachformen*, Königsberg, 1876.—Similar doubts have been expressed, though with more reserve, by Bergaigne in the *Mémoires de la Société de linguistique*, vol. iii., who partly follows Alfred Ludwig (*Der Infinitiv im Veda; Agglutination oder Adaptation*). A. H. Sayce, who, in his *Principles of Comparative Philology* (2nd ed. Lond. 1875), opposes Bopp's theory in many important points, still, at p. 294, accepts its explanation of the personal terminations.

a moment to look the new theories of our opponents straight in the face. In so doing we must treat separately the origin of the personal termination and the construction of compound verbal forms.

As far then as the personal terminations are concerned, Westphal acknowledges the phonetic similarity between them and the stems of the personal pronouns, but he adopts the view advanced, though not very positively, by Karl Ferd. Becker, according to which the personal terminations, and, as Westphal holds, the middle ones, came first, and the personal pronouns were afterwards formed from them. The positive part of his view we shall have to examine later on, but first of all we must enquire into its negative side. What are the grounds then which decide Westphal to abandon a theory that is so widespread and, as it seems to me, so well considered? It almost looks as if he thought the name 'Agglutinationstheorie' enough in itself to arouse a feeling of abhorrence in every thoughtful mind, as in fact the expression 'Bopp's Agglutinationstheorie'—for Bopp's name others with equal capriciousness put Schleicher's—has subsequently been used here and there in a like contemptuous sense. The reasons casually adduced by Westphal are mightily meagre. In spite of repeated perusal I have only been able to discover three definite objections. The first rests on the difference between the termination of the 1st sing. act. *mi* or *m* and the *nominative* of the first personal pronoun. 'Those,' he says ('Philos. Gr.' 129), 'who take the view contrary to mine and explain the termination of the first person in the verb by supposing the attachment of a word which already had its own meaning of *I*, are forced into a grave self-contradiction, for the stem *ma* to which they have recourse has no meaning but *me, to me*, and never that of *I*.' This objection is not hard, I think, to disable. It seems to me that the difference between the nominative and the oblique cases is one which language took cognisance of, not when stems were formed, but after inflexion had begun. No one ever said that a *nomi-*
22 *native ma* was the source of the termination *mi*, but a *stem ma*, which, like every other stem, possessed the faculty of producing various cases in a period *subsequent*, as I think I have shown, to that of the origin of verbal forms. That a stem should in itself be adapted only for a certain set of cases and not for others seems to me as inconceivable logically as that a verb-stem should be adapted only for certain persons, moods, or tenses. All these things are merely accidents affecting the substance of the stem after it has taken shape, not before. There is nothing of the kind to be seen in the pronominal stem *tva* for the second or *ta* for the third person. If then in the language of later times the stem *ma* forms no nominative, it must be held in so far defective: it must have left off forming a nominative. We find something similar in the case of the stem *ta*. This stem developes no nom. sing. masc. and fem. *ta-s tā* as an independent pronoun, but the nom. plur. *ta-i, tās* is enough to show us that there is no conceivable obstruction producing this defect, and compound forms like *αὐ-τό-ς* and *is-te* prove conclusively that there is no such thing as the creation of stems for oblique cases alone.

Westphal, it is true, regards the assumption that the stem *ma* may once have had the power of denoting the subject as an hypothesis that we have no right to make.[5] But how is it possible to discuss the first estab-

[5] How little scruple Westphal has to assume even for Greek forms not sup-

lishment of linguistic forms which undoubtedly took shape in very early times, if we do not use hypotheses? Does Westphal then make no hypotheses when he assumes a language without personal pronouns, assumes personal terminations to have arisen from 'essentially meaningless' vowels and consonants, taken quite at will and presumed to 'occur naturally' to the primitive Indo-Germans? I think these such violent and improbable hypotheses that by their side the assumption that *ma* was defective seems perfectly innocent. Why, where are we to look for 23
a language without personal pronouns? How are we ever to conceive of a verbal structure so elaborate, with the most accurate means of denoting the I, thou, we, &c., if the language was not at the same time able to express the corresponding persons when standing by themselves, able, however imperfectly, to express 'to him' or 'him,' 'to thee' or 'thee' somehow or other? On Westphal's hypothesis this must have been impossible until this process in the verb was completed. And how is it, if the personal terminations really did fall like drops from the body of the middle voice, or like ripe apples from its branches, that notwithstanding there is so very little likeness between e.g. the plural of the middle terminations and that of the personal pronouns? He is obliged to admit in his 'Greek Grammar,' i. p. 391 ff., that even after applying all the 'euphonic' sounds, 'fulcra,' &c., which he has at his beck, he finds the stem of the second person plural 'completely unintelligible.' But if it is necessary, before we can explain the production of the independent pronouns in the plural, to find other tendencies at work than those which are discernible in the personal terminations of the verb, the whole of Westphal's hypothesis falls to the ground.

A second objection deals with the relation of the secondary to the primary terminations. Westphal will not allow us any right to derive the former from the latter by loss of sound. In the preterite, he says, we never find *mi, si, ti, nti*, and are not justified in assuming it to have had these forms once. But here, too, the received theory is supported by analogies which are beyond doubt, and which even Westphal cannot reject. If the poetical ἐσσί had not been preserved we should not have a single Greek second person singular with the full termination; in all other cases the ι has disappeared. In Latin there is no *mi, si, ti*. The *i* has been completely lost, with the exception of a single trace in the Carmen Saliare. In the first person plural it is only Vedic Sanskrit in its *-masi*, which there occurs more often than *-mas*, and the Zend *-mahi*, which have kept the *i*, which we must undoubtedly assume for the original Indo-Germanic tongue. In the perfect active in Sanskrit the personal termination of the 1st and 3rd sing. has disappeared, the primary ending 24
of the 3rd plur. (*us* by the side of *anti*) is considerably abbreviated. In short, the rejection of final vowels, especially by polysyllabic forms, is among the best-established facts of the history of language, and since it is quite impossible to understand the verbal system without some reconstruction, there is no excessive boldness in presupposing similar processes to have happened in the earliest period of the genesis and first estab-

ported by any authority may be seen from what he says at p. 75 of vol. ii. of his *Gk. Gr.*: 'We must assume that there was at an earlier stage of the Greek language not only a λέγετε say ye, &c., but also λέγον I should like to say, and λέγομεν we want to say.'

lishment of these forms when we have such clear analogies to guide us. The moderate assumption of such losses, even for so early times, is justified by the fact that all inflexion not only allows but necessitates some degree of weakening of the constructive elements added to the body of the word.

A third argument, on which our opponent lays stress, deals with the *n* of the 3rd pers. plur. (*nti*, *nt*, 'Gk. Gram.' p. 79). He holds that 'it is impossible to discern a mark of the third person in each of the two elements *n* and *t* so as to give probability to what analogy would show to be the primary meaning,' i.e. he and he. We shall see below, however, that the pronominal stem *an* provides us with a satisfactory explanation, and this was recognised long since by Schleicher, though to this the author of the 'Methodical Grammar' did not choose to pay any attention.

I have not been able to discover any other objections to the received theory. It would rather seem that this scholar, who many years since showed himself, by his valuable investigation of the laws of final letters in Gothic, to be an acute enquirer, but who has paid little attention to the literature of linguistic science since that time, has been really driven, by a line of argument that does not touch the Indo-Germanic languages at all, to represent the construction of Indo-Germanic speech as different to what all previous enquirers have thought it. In the preface to his 'Philosophisch-historische Grammatik,' p. xii, he says: 'There is no self-evident ground for the assumption that all phenomena of the oldest and most primitive store of Indo-Germanic and Semitic inflexions must necessarily have arisen by agglutination, and admit of absolutely no other explanation or analysis.' With respect to the possibility of inflexions of a different origin, he appeals especially to Arabic, saying that we have here 'a class of inflexions of the noblest and oldest kind, and here not even an attempt can be made to refer the inflexional endings *a*, *i*, *u*, *an*, *in*, *un* (for this triplet of pure vowels is the basis of the later terminations which were dulled by *e* and *o*) to pronominal or significant roots.' But we must not be too sure of this. It is maintained, e.g. by Dillmann, a scholar of some note ('Aethiopische Gramm.' p. 254), in spite of Westphal's veto, that the *a* of the acc., by the side of which there occurs in Æthiopian *ha* as well, is a primitive 'impersonal demonstrative particle, meaning here, there, identical with the Hebrew ה of direction.' Besides, these elements belong to the formation of cases, others adduced by Westphal to that of moods; and so even if they could not be shown to have arisen from the adhesion of originally independent stems, this would prove nothing about the personal terminations. That these arose in Semitic from pronominal stems seems generally admitted (cp. e.g. Gesenius, 'Hebr. Gr.' (21st ed.), p. 80; Dillmann, 'Aethiop. Gr.' p. 161), and is with respect to many of the terminations so evident as hardly to admit of a doubt, especially as the Semitic terminations share with the independent pronoun the power of marking gender, a power which no other verbs possess. This last fact proves clearly that here, as shown by Schleicher, 'Ueber Nomen und Verbum' (Abh. d. k. Sächs. Ges. d. Wissensch. hist.-philosoph. Abth. iv. p. 514 ff.), the distinction between noun and verb has not yet been quite clearly drawn.

This theory of agglutination which Westphal attacks is supported

by an almost incalculable number of facts, and takes account throughout of tangible magnitudes. It is a fact that in a large number of languages the personal terminations are absolutely identical with the possessive suffixes. Compare, e.g. the Magyar (Schleicher, ut supra, 527)—

várt-am I have waited	*hal-am* my fish
várt-ad thou hast waited for him	*hal-ad* thy fish
várt-a he has waited for him	*hal-a* his fish
várt-unk we have waited.	*hal-unk* our fish.

Who can doubt here that in both cases the terminations were in themselves nothing but expressions of the different persons? *I* and *my*, *thou* and *thy*, are here completely identical, so that we are justified in translating the verbal forms as viewed by the Magyar language by *my having waited*, *thy having waited*, &c.; and it will hardly be supposed that this agglutination took place in the verb sooner than in the noun. Exactly the same process can be discerned in many other languages, as may be conveniently seen in Schleicher (ut supra), e.g. Ostjakish (p. 535). 26

pane-m I laid	*ime-m* my wife
pane-n thou laidest	*ime-n* thy wife
pane-t he laid.	*ime-t* his wife.

Jakutish:

byst-ym I cut	*bas-ym* my head
byst-yu thou cuttest	*bas-yu* thy head
byst-a he cut.	*bas-a* his head.

If, then, Westphal bases his view on the very imperfectly demonstrated impossibility of explaining all inflexion to have arisen from the accretion of separate formations, the opposite view is supported by numerous actual instances of the growth of personal terminations out of pronominal stems. Add to this that, in later periods of languages whose stock of sounds has been much reduced and thus made often undistinguishable from each other, personal pronouns are a second time used with verbal forms to denote the grammatical subject, now of course not as stems but as outworn cases: *I give, je donne*, &c., and it will appear that the origin claimed for these terminations—however difficult it may be to explain some individual instances—is really as probable a one as we can ever expect to find in the case of problems which deal with the earliest periods of the life of language. It has, moreover, the support of the grand idea which is so truly in harmony with the researches of natural science, that of the *continuity* of all linguistic formation. The higher stages of language are not separated from the lower by an impassable gulf, but only by a greater nicety of elaboration to which certain races have never attained. Monosyllabic speech, imperfect combination (agglutination), perfect combination (inflexion), these are the three main stages, the third of which, if I am not mistaken, is being every day found to be more like the second. 27

These self-consistent, clear, and simple opinions, which more or less explicitly form the basis of the whole mass of modern linguistic science, will, I venture to think, find no difficulty in holding their own against the diametrically opposite view expounded by Westphal, especially in his 'philosophisch-historische Grammatik,' e.g. p. 94 ff. It does not fall

within our province to examine his general considerations, which are so suggestive of the natural philosophy of earlier times. To many they will be unintelligible, as I confess they are to me. Westphal regards the linguistic structure of the Indo-Germanic stock as 'an architectural work of art, endowed with endless magnificence and lavish grandeur.' 'The logico-constructive categories followed by the Indo-Germans in the formation of their language are the same categories which have sway in the Cosmos, in the macrocosm and in the microcosm alike; the same that underlie sidereal life and the various forms of telluric existence, whether inorganic, vegetable, or animal.' I readily admit, and perhaps more readers than one would do the same, that I find theories of such a vast sweep brought no nearer to my comprehension by the following somewhat extraordinary comparison. Westphal goes on to say, 'Our primitive Indo-Germanic ancestors followed these categories with the same perfect unconsciousness as when they snatched at the first food to nourish their bodies, or when the first Indo-German man embraced for the first time the first Indo-German woman, who, though he did not know it yet, was to produce him a man like himself.' From this 'dialectic of celestial intelligence' we are at length conducted to the world, with which we are directly concerned, the world of sounds, forms, and linguistic expression. But here on the threshold we are met by assertions for which no support is even attempted—'*a* is the vowel which *came nearest* to his (the Indo-German's) organs.' Since Westphal himself admits that the primitive Indo-German had *i* and *u* at command as well, it is quite im-
28 possible to see by what rule he measures the nearness to the Indo-German of these different vowels. What is meant by 'coming nearer'? If it means 'being more easy to pronounce,' the history of language and physiology both give the assertion a flat contradiction. The vowel *a* demands a greater tension of the organs of speech than *i* or *u*, and hence, as is well known, *a* tends everywhere, as languages go on, to become more like *i* or *u*. And yet it is upon this undefined notion of 'coming nearer,' which surprises us as we pass from the macrocosm to the origin of language, that all Westphal's subsequent system rests. He confidently applies the same notion of approximation to the consonants as well: 'The nasal is the consonant that comes nearest to the organs of speech, the dental mute and the sibilant are more remote,[6] hence in the inflexional system the former is the representative of what comes nearer to the speaker among the dialectical series of definite conceptions, the dental mute or the dental sibilant, which takes its place, the expression of something more remote.' Here, as we see, this ambiguous conception is turned to practical account, by being made to serve as an explanation of the personal terminations *m*, *s*, *t*.

I have thought it not superfluous to add these samples of the positive side of Westphal's teaching, though I confess that while reading these theorems I have at times doubted whether the author was in earnest, or only wanted to try how much nonsense superficial readers could be made to accept. I will leave each reader to take his choice between the much-abused 'agglutination' and this new philosophy of the nearest.

Another point of importance in the representation cursorily given

[6] *Gk. Gr.* p. 80: 'Of consonants those that *come nearest* are the nasal and the mute which is interchangeable with the dental sibilant.'

above of the way in which verbal inflexion arose is the question of *compound tenses*. It is universally admitted that composition, a source of word-making from which the Indo-Germans have gained so much and various help for the noun, is to be found at work in the verb as well. Who could fail to recognise even in Latin forms like *pot-ero*, Gothic like *sôki-dêdum* (we did seek), the presence of two verbal stems, the second of 29
which takes a position of subserviency to the first? But Westphal ('Philos. Gr.' 107) looks on the whole phenomenon as a comparatively late one. His view is that compound verbal forms are uniformly combinations of *inflected* noun-forms with *inflected* verbal forms, as is the case, e.g. in the Skt. periphrastic perfect of the verbs of the 10th class, e.g. *ḱorajāñ ḱakāra*, properly 'I made theft' for 'I stole,' or *ḱorajām āsa*, *ḱorajām babhūva*, properly 'I was theft.' As infinitives again are universally held to be petrified case-forms, Westphal is content if he can find an infinitive in the first half of such a verbal compound. A compound therefore like the French fut. *aimer-ai*, properly 'I have to love,' he finds no stumbling-block. On the other hand, he denies that an uninflected or bare verbal-stem can be compounded with an inflected verbal form, which is the assumption made, e.g. by Bopp and others in order to explain the Skt. *á-dik-sha-m* = Greek ἔ-δειξα. Here Westphal and Merguet are quite at one, with this exception, that Merguet goes farther than his predecessor in his unqualified objection to the received theory.

The difference between us here is by no means so fundamental as that discussed above. It is an actual fact that many verbal compounds are of the kind allowed by both scholars, and hence the question must be asked in each case, whether or not there can be found in the verbal-stem a noun-stem capable of inflexion. This question we shall not fail to investigate below when we come to the forms concerned. We may, however, notice two points by the way. Great mistakes are often made by those who look for inflected noun-forms or infinitives in the interior of verbal compounds. For instance, while Westphal (p. 111) asserts that 'before this old perfect too of the verb to do (*sôki-da*, &c.) there *must* have been an infinitive originally,' he makes not the faintest attempt to establish this by the investigation of the Teutonic languages. What is the good of this '*must*' if he leaves the question in such an imperfect state? Again, in spite of his unwillingness to recognise bare stems in verbal compounds, Westphal admits on the same page that in the Latin forms *eram*, *erim* (*lēgeram*, *lēgerim*) 'it certainly looks as if the auxiliary 30
form in question had been added to the *simple perfect-stem*, though these combinations are too obscured to admit of a clear insight into their genesis.' In such a case we may be sure of so much at least, that on his own showing there are still some obscurities left in Westphal's theory.

Merguet expresses himself more strongly still. At p. 199 of the above-mentioned work he passes a final judgment on all such formations in the following words: 'We must not forget that stems with no inflexion can only be assumed to have existed as independent words in a period antecedent to the appearance of inflexion, and must have ceased to exist as such as soon as inflexion arose. Now the auxiliary verb assumed to be the second component appears in an inflected form, and therefore presupposes the existence of inflexion. So that we should have to suppose two words to be here combined, of which the former could only have existed before inflexion began, while the latter owed its existence to inflexion

itself. These two words consequently could not both have been in use at once, and the supposition of their combination involves a contradiction.' Linguistic science would indeed be in an evil plight if it had been maintaining for half a century doctrines which a couple of sentences could so completely upset. It is a pity that Merguet did not make himself a little better acquainted with the views he attacks before writing these words. He talks throughout as if what he calls inflexion had burst upon the world all at once like some natural phenomenon, revolutionising all the previous order of things, and introducing in fact just the inflexions of verbs and nouns which are to be found in the school-books. But all linguistic enquiry, as I have repeatedly pointed out, assumes forms to have arisen gradually and in strata. Where inflexion was of so gradual a growth, there is no absurdity at all in supposing that by the side of and in composition with inflected forms there appeared formations belonging to a previous stage of development.

In my treatise 'Zur Chronologie,' to which he occasionally refers, I have endeavoured to prove that inflexion in the nouns did not take place till some time after the three main stages had been reached in the inflexion of the verb. If this was so, there were, e.g. no case-forms of the noun-
31 stem *dik* for a long time after the production of a verbal form *asmi* or *asami* I am; that is, there was a bare stem then in use. And why should it be thought impossible that these two forms should have come together with a small change into *dik-sami*, and that this *dik-sami* should make a preterite *a-diksa-m* as *dadā-mi* made *a-dadā-m*? Merguet himself (p. 64) is obliged to admit that the vocative is an uninflected stem-form. There is here nothing like the anachronism or 'self-contradiction' which Merguet imagines he has found. Again, what are we to say to compounds like πυρ-φόρο-ς, πάν(τ)-σοφο-ς, λογο-ποιό-ς? In all these cases we most unmistakeably find uninflected uniting with inflected stems to make organic wholes. Or are we to suppose that in all these cases case-terminations have been lost? Who would venture to try and establish that? In answer to objections Merguet has published a second work, 'Die Ableitung der Verbalendungen aus Hilfsverben' &c. (Berlin, 1871). At p. 33 of this work he is already on the road to the discovery that if we want to understand the nature of compounded stems, we must transport ourselves to that period in which words 'had the form of bare stems.' Without doubt even at that early time types had been produced of every kind of composition, and among others of the composition of predicative stems with the auxiliary verbal forms which I suppose to have been already developed. We are, in fact, brought back constantly from all directions to the fundamental truth, that in all linguistic life we find older strata side by side with younger, cropping up here and there, and reaching over from an earlier into a later period. What Merguet goes on to say in his first work about the improbability that auxiliary verbs were older than others is still less to the point. No one ever said they were: it is universally held, on the contrary, that auxiliaries are weakened verbs of independent meaning. Forms then with auxiliaries in them do certainly presuppose older strata of verbal forms, but there is nothing that forbids us to suppose that later, after a number of verbs
32 which originally had a full meaning had become auxiliaries in separate use, the attempt was made to use them in compounds as well, and that

too when they were bare stems, just as they were used in later times after their stems had been expanded and even provided with case-inflexions. In my treatise 'Zur Chronologie,' e.g. p. 55 f. (2nd edit.), I have called attention to all this, and pointed out how vast are the periods which the consideration of all these strata one upon another reveals to us. And in fact I cannot see how what I have there said—and Merguet nowhere examines more closely—is in the very least refuted by the contradiction he says he has discovered.

Still less successful are the attempts made to find another explanation for the forms in question. Westphal, inasmuch as he is unable to explain the whole mass of forms by the aid of the elements which he regards as primitive, assumes a twofold series of adjuncts by which what he takes to have been the primitive formations were expanded. To the first series of adjuncts he assigns meanings, e.g. to the *i* of the term. *mi*, which—although by his theory *i* is a 'more remote' vowel—comes nearest, i.e. is the right one to express present time, to the *s* of the aorist, to which, for some unknown reason, he ascribes an intensive force, and to the *a* which he says occasionally denotes the plural. To this list must be added, if I understand Westphal rightly, those expansives to which he gives the name 'fulcra,' e.g. the syllables *as* and *jus* in the pronominal stems *as-ma*, *jus-ma*, and perhaps too some of what he calls 'strengthenings,' or 'secondary adjuncts,' e.g. the κ in σκ. All these sounds and syllables, of which he nowhere gives any explanation, can according to his theory be introduced, even after the primary structure of the language has been established, as a kind of second instalment or reserve force from the divine ἐκμαγεῖον of forms, at the beginning, middle, or end of words.

A second series of subsequently introduced adjuncts are, on the contrary, held to be purely phonetic. It contains 'euphonic,' 'purely euphonic,' 'purely phonetic' vowels, and consonants as well, the latter, where they appear between vowels, being entitled 'dividing consonants,' the exact counterpart, that is, of the well-known and still favourite 'connecting vowels.' In this latter point Westphal and Merguet are at one. Both credit the 'fuga hiatus,' that is, the disinclination to let two vowels come into direct contact, with the production of a goodly row of 33
consonants which Merguet supposes (p. 205) to have arisen 'out of what was originally a very indistinct aspiration.' To criticise these views, which Merguet advances less positively in his second work, is not here our object. There are only two points to which I wish to call attention. The first is, that by such assumptions we are really transported bodily back to the old grammarians' point of view, which it was hoped was left behind for ever. It is notorious that their exploded etymologies were indebted for their existence to the freest possible use of the πλεονασμός of single sounds and whole syllables. What are these 'fulcra,' &c. but the naïvely admitted pleonasms of the ancients? If fulcra, strengthenings, purely phonetic adjuncts are to be allowed everywhere, it will be hard to set bounds to the most extravagant caprice. The second point is the marvellous inconsistency with which language would be chargeable, if it had really produced forms in the way supposed. On this head we shall confine ourselves exclusively to Westphal. According to this scholar, the Greeks had a considerable troop of sounds at command for

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the purpose of preventing vowels from clashing; e.g. τ ('Gk. Gr.' i. p. 117), which is used, among other things, to form the 'locative' ἔ-τ-ι from the stem ἑ,[7] κ, introduced in the perfect active 'to avoid a hiatus,' ν in τί-ν-ος, τί-ν-ι (ii. 409), δ in ἐλπί-δ-ος (i. 254, 266), θ in κόρυ-θ-ος (p. 274), στ in θέμι-στ-ος (p. 254), ι in οἴκο-ι-ο for οἴκο-ο (p. 145). In many of these forms there is not the slightest warrant for such assumptions; ιο and νο are in no way such combinations as were avoided (cp. στύγιος, δάκρυον, ἔλυομεν). Another question that arises elsewhere is, why were these auxiliary troops put to so little use? It would have been perfectly easy to prevent vowels from clashing at all. How is it, then, that we get such strange forms as γένεος, γένεῖ, γένεα, λιλαίεαι, in all of which an σ had to be rejected before the clashing was possible? How is it to be explained that the same language which, as Westphal himself allows, often throws out *j* or ι between two vowels, e.g. (ii. 132) in δακρύ-ω for the presupposable δακρυ-ιω, and in all the verbs in αω, οω,
34 εω, has in other cases actually introduced the sound *j* afresh? On the one hand, as no one denies, μισθο-ιω becomes μισθώ-ω; on the other, as Westphal says, οἴκο-ο becomes οἴκο-ι-ο! And elsewhere the case is the same. The θ in ἀρ-θ-μό-ς (i. 184) is said to be 'euphonic,' whereas the same group of sounds was found so objectionable by the Greeks in πέπειθ-μαι that they changed it to πέπεισ-μαι. Are we to think the Greek ear varied so waywardly that in one century it wanted to have a θ before an μ, and in another wanted to get rid of it?

It must not be forgotten in this controversy, that assumptions like these of Westphal's have in individual instances found support even among the representatives of comparative grammar. I once thought myself, with Westphal e.g., that the κ in the perfect was euphonic, though I have long given up the idea. A more connected and thorough examination of the matter in hand has led me to the conclusion that the admission of purely phonetic elements in the life of language is only to be made with the greatest circumspection. Language is penetrated everywhere with significance. Its forms can at first have contained nothing but what served for the instinctive expression of an idea or conception. It is true that sounds have a life of their own which is in many respects independent. Their changes can be established for each language according to its own prevailing analogies. It must, e.g. be allowed that out of the vocalic element contained in every continuous sound a vowel may in some circumstances arise, and that, conversely, a special articulation may give a vowel a nasal pronunciation, and that this nasal echo may develope into an independent nasal. Similar phonetic growths of no meaning are to be allowed to but a very limited extent (e.g. ἀν-δ-ρ-ός), and in all such cases the germ of the sound is in reality an outgrowth from the sounds already there. But nothing can justify us in going farther than this and admitting the possibility of the *generatio aequivoca* of a sound out of nothing at all.

In these principles I believe I am at one with the great majority of my fellow enquirers. Our object is to explain the phenomena of

[7] We should have just as much right to call π euphonic, and thus explain ἀ-π-ό to be from the stem ἀ (perhaps originally ἀ-π-οτ), and so arrive at an ablative.

language according to the phonetic laws and tendencies of individual languages, and to refer them in all cases to elements which had once a meaning, and which were created in early periods of the linguistic life. We are certainly far from our goal as yet, but it is of the first importance to be sure of our way; and so it appeared to me fitting that at the outset of these investigations I should make an express avowal of these main fundamental principles.

CHAPTER II.

THE PERSONAL TERMINATIONS.

I. ACTIVE.

BUTTMANN, in his time, expressed himself as follows on the subject of the origin of the personal terminations (Ausf. Gr. i.[2] 496, note): 'All these syllabic endings were, as the analogy of oriental languages clearly proves, marks of the three persons, and originated in *attached pronouns*; they lost, however, their original force as the language took shape and opened the door to the smoothings and roundings which find their way into language owing to the desire for rapid and euphonious speech.' This judgment has been in every way established and confirmed by comparative philology. It must, no doubt, be admitted that even those who are sure that the principle of this explanation is the right one find great difficulty at many points, especially in the dual, the plural, and the whole of the middle. But we may assume, I think, to begin with, that in this primitive region of the genesis of forms weakenings and dullings of primary forms were more frequent than elsewhere, and that as a result of this we cannot always arrive at certainty as to what the origin was. Our purpose demands that we should mainly try and find what relation the given Greek forms bear to the primary forms which may with more or less probability be presupposed. In so doing we may most certainly start with the assumption that the forms of the Greek personal terminations which are *fullest*, in so far as they can be reconciled with those of the related
36 languages, are also relatively the oldest, while those which are less substantial have been weakened from them. This truth, which has been established by the researches of Bopp (Vergl. Gr. § 434 ff.) and Schleicher (Comp. § 269 ff.), has not been upset by Friedrich Müller's opposition. The last-named scholar (Sitzungsberichte der k. Akad. Philol. Hist. Cl. vol. xxxiv., and again vol. lxvi. Oct.) was for starting not from *mi*, *si*, *ti*, but from *m*, *s*, *t*, and regarding the *i*, strange as it may seem, as a mark of the present tense. The difficulties encountered by such assumptions have already been pointed out by Misteli, Ztschr. xv. 287, and I have defended the received view myself in my 'Studien' (vol. iv. p. 211 ff.). We hold fast to this then, that, to begin with the singular, those personal terminations in it are the oldest which approach most nearly to the personal pronoun-stems *ma*, *tva*, *ta*.

FIRST PERSON SINGULAR.

According to Schleicher the termination of the 1st sing. has split up into two essentially distinct forms, the original *ma* having on one side lost the *m* and become *a*, on the other weakened the *a* to *i* and taken the form first of *mi* and then of simple *m* (Gk. *ν*), the former (*a*) appearing in the

perfect, the latter (*mi* or *m*) in all the other tenses. In Schleicher's view then the *a* in *γέγον-α*=Skt. *ǵaǵán-a* is essentially distinct from that in the aor. *ἔδειξα*; in the former it stands for *ma*, in the latter it is part of the tense-stem, after which, as is shown by the Skt. *á-dîksha-m*, the personal termination disappeared only on Greek soil. If this could be proved, the 1st pers. perf. would be remarkable at once for its great antiquity and its strange transformation. As far as its antiquity goes, which is shown in the preservation of the primitive *a*, we have a parallel to the 1st sing. in the *tha* of the 2nd, which we cannot but derive straight from the pronominal stem *tva*; and herein evidently lay the main ground for Schleicher's view. We should actually be able to ascend to a still older system of vowels, inasmuch as Kuhn ('Ztschr.' xv. 405) adduces from the Vedas forms like *ǵa-grábhā* (I grasped), *bi-bhájā* (I feared), and 37
from Zend *ta-tashā* (I framed; cp. Justi's Lexicon); and Justi recognises the form *-tâ* in Zend for the 2nd pers. as well (*vôiç-tâ*=*οἶσθα*). There is, however, a difference between these two persons as well as a resemblance. In the *tha* or *ta*, Gk. *θα*, of the 2nd sing. the consonant has been carefully preserved; and where it clashes with the final consonant of the rt. the difficulty is adjusted: Skt. *vét-tha* for *vēd-tha*=*οἶσ-θα* for *οἶδ-θα*, but the consonant in the termination never disappears to make way for that in the root. On looking further we find the same process occurring throughout. Everywhere in Greek the consonant of the termination is the determining and the persistent one. Perspicuity demanded that this should be so, for since the personal terminations are distinguished from each other essentially by their initial consonants only, if the opposite process had taken precedence, it would really have led to the annihilation of the newly created personal terminations. And Schleicher holds, in fact, that the Skt. 3rd sing. perf. *véda* came from *vēd-ta*, and thus coincides with what was originally *vēd-ma* in the 1st sing. It is true that for this expulsion of the consonant of the term. we have *one* certain instance, of which, of course, Schleicher was thinking when he formed his views. The 1st sing. of the middle loses its *m* throughout in Skt. and Zend, as does the 3rd sing. of the middle perfect its *t*, and the result is that both persons of this tense in these languages coincide. But since Greek has in this instance preserved its *μαι* and *ται* everywhere without exception, and since in Gothic, too, *-da* survived all along, we have no right to assign this strange mutilation in Skt. and Zend to a period antecedent to the separation of the European languages from the common stock, but ought rather on every account to assign it to no earlier period than that in which Indians and Iranians made a distinct smaller group. Consequently the above-mentioned analogy does not hold when we look more closely at it. It might prove something for oriental languages, but not for Greek forms; but since the Skt. *ǵaǵána* can hardly be separated from the Gk. *γέγονα*, we must give up the idea of establishing for the oriental languages, that the *a* at the end of the 1st sing. is a curtailed 38
ma.

For these reasons I hold to the view that the perfects, in the 1st as in the 3rd sing., lost their termination not *before* but *after* the *a*, which we shall afterwards see still stronger reasons for considering to belong to the stem, and that this loss took place at no very early period. I refer *γέγονα* to *γεγονα-μι*, and *ǵaǵána* to *ǵaǵana-mi*, and believe we ought to regard the agreement between the two languages here as of the

same kind as that between the 1st sing. in ω and the Zend presents in *a*, e.g. *pereçâ* (I ask)=Skt. *pṛkkhâ-mi*. In the case of these latter we can hardly doubt that, as will be shown more at length directly, in the time before the separation of the languages, the *mi* was still intact in the present, and hence that the special correspondence between Greek and Zend here is the result of later development taking place independently in the two languages, and due to kindred causes. And this is just the conclusion to which we must come about the above-mentioned perfect forms.[1] In support of this view we can adduce an isolated but well attested perfect form, the Æolic *Foίδη-μι* = *Foῖδα* (Ahrens, Aeol. 136). Why should we not think that here the *μι* is just as much a relic of earlier times as in other cases? This *Foίδη-μι* brings us to an Indo-Germanic *vaida-mi*. The vowel before the termination will have to be discussed later. Here we have only to do with the termination itself. If our conclusions are correct, they prove that there is no evidence of any form for the 1st pers. sing. older than *-mi*. We now turn to the consideration of the *-μι* retained in Greek, then of its loss and its transformation.

1) μι in the 1st sing. pres. ind. of primitive verbs.

The number of the verbs which get their name from the fact that they retain their old termination is not a very great one. We shall learn
39 more about them in the fourth chapter. All have occasional by-forms of the ordinary conjugation, which are specially numerous in the case of the verbs in *-νυμι*, though from Homer downwards they do occur in other verbs besides, and justify the conclusion that this class of formations was already becoming obsolete at the earliest period of which we have any record. Many only exist in isolated forms. Perhaps we may find in the fact that a small number of verbs of uncommonly frequent use, like *εἰμί*, *εἶμι*, *τίθημι*, *δίδωμι*, *ἵστημι*, *ἵημι*, *φημί*, *δείκνυμι*, *ὄμνυμι*, remained true to the older fashion, the reason why others of less frequent use were able to withstand the main tendency of verbal inflexion and preserve their old forms intact.

2) More extended use in Aeolic.

We have the repeated testimony of the old grammarians to the fact that the conjugation in MI was more extensively used in the Aeolic dialect than in the others (Ahrens, Aeol. 134). In single instances we actually find forms with the fuller personal termination peculiar to this conjugation, as *κάλη-μι* (Sappho, 1, 16), *ὄρη-μι* (ib. 2, 11), *ἀσυνέτη-μι* (Alcaeus, 18, 1 Be.), *αἴτη-μι* (Pind. fr. 132, 4 Be.), *αἴνη-μι* (Hes. Opp. 683), *ἐπαίνη-μι* (Simon. Ceus, fr. 5, 19 Be.[3]). We have too the direct testimony of Herodian (ed. Lentz, ii. 463, 930, 825) to the forms *γέλαιμι*, *πάλαιμι*, *πλάναιμι*, *δοκίμωμι*, and the Boeot. *τάρβειμι*, *ποίειμι*, *φίλειμι*. Most of the examples, however, belong to formations which differ from those of other dialects, not in their terminations, but only in their

[1] Brugman's attempt (Stud. ix. 314 ff.) to represent the vowel which stands before the personal terminations in the perfect as a mere production of the nasal, and make the vowel of the 3rd sing. e.g. *ϝαϝάγα* = *γέγονε* rest on mere formation by analogy, does not convince me in the least.

internal vowel, e.g. 3 pl. *ἐπιῤῥόμβεισι* (Sappho 2), *ἴεισι* (ib. 16), part. *οἴκεις* (Alc. 69), *τίθεις* (ib. 34), *καλήμενος, ἀπειλήτην, συναντήτην, φορήμεναι*. Here the dialectic difference lies in the different treatment of the vowels which clash in the contracted verbs, and this must be discussed elsewhere. I only mention this fact now because it serves to refute an assumption made by Ludw. Hirzel ('Zur Beurtheilung des aeolischen Dialekts,' p. 56 ff.), and supported by several scholars, that in their *ὄρημι*, &c., the Aeolians were not preserving a relic of older language, but had only at a late period applied the fuller terminations in larger numbers on the analogy of the verbs like *ἵστημι, τίθημι, δίδωμι*. Forms like *φορήμεθα* (Alc. 18, 4), *καλήμενος, φίλησθα*, &c., prove that the analogy which is sought in the forms of the ordinary Greek verbs in MI did not exist at all. For authentic Aeolic forms like *ἀπυδόμεναι, ὀνθέμεναι* (Ahr. 141), *περθεμένων* (Sappho 64), *ἐπισταμένα* (ib. 70), are markedly distinguished from those given just above by their short vowels, as I have shown at greater length in my essay, 'Zur Geschichte der griechischen zusammengezogenen Verbalformen,' Stud. iii. 379 ff. Thus regarded these Aeolisms again assume the character of great antiquity; and of this we are the less entitled to doubt because we have yet other traces handed down to us of the better preservation of the genuine full personal terminations, especially from the Homeric dialect, and to these traces we will now turn. 40

3) The termination *μι* in the conjunctive

was, after a few scattered notices of the old grammarians, first introduced into our Homeric text by Gottfr. Hermann (De Emend. Ratione Gramm. Gr. p. 263) and F. A. Wolf, while the M.SS. have in its place the ordinary optatives, which, however, in many places violate the syntax. (Cp. Buttmann, Ausf. Gr. i.[2] 351; Matthiae, i. 453; G. Hermann, on Hymn. in Cererem, v. 123.) Bekker, Hom. Blätter, i. 218, recognises the following ten instances :—

Ω 717 *ἐπὴν ἀγάγωμι δόμονδε* (Et. M. p. 54, 43)
E 279 *εἴ κε τύχωμι* (cod. Ven. A and Harlei.)
τ 490 *ὁππότ' ἂν ἄλλας δμωὰς ἐν μεγάροισιν ἐμοῖς κτείνωμι γυναῖκας* (the same M.SS.)
I 397 *τάων ἥν κ' ἐθέλωμι φίλην ποιήσομ' ἄκοιτιν* (Apollon. de Conjunct.; Bekker, Anecd. p. 516)
H 243 and χ 7 *εἴ κε τύχωμι* (Eustathius, p. 1279, 48)
A 549 *ὃν δέ κ' ἐγὼν ἀπάνευθε νεῶν ἐθέλωμι νοῆσαι*
φ 348 *εἴ κ' ἐθέλωμι*
χ 392 *ὄφρα ἔπος εἴπωμι τό μοι καταθύμιόν ἐστιν*
Σ 63 *ἀλλ' εἶμ' ὄφρα ἴδωμι φίλον τέκος*

while, instead of *ἵκωμι φίλην ἐς πατρίδα γαῖαν*, as has been written at I 414, instead of the MS. *ἵκωμαι φίλην* or *ἵκοιμι φίλην*, we must with Brugman ('Ein Problem,' 71) read *ἵκωμαι ἐήν*. That the full form belonged of old to the conjunctive just as much as to the indicative is a fact that calls for no remark. As the Greeks had universally abandoned the *μι* in the indicative of barytone verbs, *ἐθέλωμι* had the advantage of being readily distinguishable from the indicative. Still a glance at the forms just given is enough to show us that it would be rash to regard 41

the desire for distinctness as the determining power in retaining the μι, for except ἐθέλωμι all the forms that are preserved belong to the aorist.

4) μι in the optative.

In all persons but the 1st sing. the Optative shows the secondary personal terminations. Here it takes the primary μι, but only in the so-called verbs in -ω, and among these, as we shall see directly, there are others besides the contracted verbs which do not have it in all tenses, while in the contracted verbs the fuller form in ιη-ν completely follows the rule of the secondary forms. Hence Bopp's doctrine (Vergl. Gr. ii.[2] 259, iii.[2] 17) that the termination μι in the 1 sing. opt. is 'unorganic.' Schleicher (Comp.[3] 648) teaches that μι has forced its way into the optative 'just as the primary forms always easily drive out the secondary ones by the force of analogy.' All the same, I do not know one instance at all corresponding to this. The general tendency of language has rather been the opposite to this—weaker and clipped forms have been preferred in time to stronger and more distinctive ones—and for this reason it would be less surprising if the reverse was the case. When we talk of analogy we are bound to find a near relation between the cases said to be analogous. We can understand how the analogy of the nom. pl. πόλεις can produce the same form in the acc. pl., because the language often treats nominative and accusative as one and the same case, or how ἡμεῖς takes the rough breathing on the analogy of ὑμεῖς. But what analogy can exist between φέροιμι and such exceptional forms as ἵστημι, δίδωμι, or even δείκνυμι?
42 Neither the form nor the meaning has any special resemblance at all. It would be more likely that we should get an *εἴημι, as such a form would be more closely related to τίθημι, ἵημι, than φέροιμι. But we find nothing of the kind. The linguistic sense of the Greeks could hardly fail, even before the time of grammatical consciousness, to see the complete analogy that existed between the optative and the preterite, an analogy which must have been most perceptible to the ear in the marked contrast shown in the middle between μην, σο, το, ντο, and μαι, σαι, ται, νται. Why then this variation? It is precisely the *absence of all analogy* for it that is so striking. For this reason, in my treatise 'Zur Chronologie,'[2] p. 61, I came to the conclusion that 'This single exception seems explicable in one way only, and that is by supposing that it is a relic of inconceivable antiquity. For that which differs entirely from the prevailing rule lies always under the presumption that it itself follows an older rule still.' Hence I concluded that this μι had survived from a time when the optative still possessed the full primary terminations intact. The same conclusion was arrived at, at the same time, by Benfey, in his treatise 'Ueber einige Pluralbildungen des indogermanischen Verbum,' p. 43, though it seems that the Skt. forms which he adduces in support of it are doubtful, and that we must not attach much weight to Pali forms like *pak'hēyyami* (which might appear in Skt. as **pak'aja-jāmi* for *pak'ēyam*. Cp. Delbrück, Altind. Verbum, p. 23).

5) μι lost.

In the first pers. sing. of the principal tenses of thematic formation the indicative never shows a μι at all. The Greek φέρω, Dor. fut. δωσίω,

are the representatives of the Skt. *bhárā-mi* (Zd. *barā-mi*) and *dāsjā-mi*. How are we to regard this? At one time it was thought enough to say the termination *μι* had been lost; but later researches have led to very different views, and especially to doubts as to whether the Graeco-Italic *ō* is really quite the same thing as the *ā* shown by oriental languages before the *-mi*. In this direction Scherer has gone farther than anyone. He maintains (Zur Gesch. der Deutschen Spr. p. 229) that 'the *a*-stems have in their *ā* preserved the older form,' i.e. that Gk. *φέρω* is to be re- 43
ferred to a primary form *bharā*, to which at a later period a *mi* was added in Skt. after the analogy of other verbs. Scherer attempts to prove this by appealing to the unanimity of the European languages and the movable nature of the term *-mi* in Zend (e.g. *pereçā* I ask=Skt. *pṛ́ĶĶhā-mi*). Kuhn, in his searching review of Scherer's book (Ztschr. xviii. 325), actually gives new instances of similar shorter forms of conjunctives from the Vedas, e.g. *stávā* for *stavā-ni*, *pra-bravā* for *pra-bravā-ni*, which are remarkable as being anticipations of European forms; but he at the same time proves most convincingly that the conclusion which Scherer bases on such forms is quite unwarrantable. Delbrück (Altind. Verbum, p. 23) is no doubt right in regarding an isolated Vedic 1st sing. in *-ān* as an intermediate stage between *-āmi* and *-ā*. It is in fact inconceivable that the thousands of verbs of the so-called first main conjugation in Skt. should owe the *-mi* of their first pers. sing., as Scherer thinks, to the 'transference' of it from the far less numerous verbs of the so-called second main conjugation. Again, the Homeric conjunctives like *ἐθέλωμι*, &c. (cp. also *ἐθέλῃσι*), when compared with the afterwards universal *ἐθέλω*, as well as the gradual tendency, already noticed at p. 15, towards uniformity and a curtailment of the terminations, which influenced the whole of Greek verbal formation, speak most decidedly against such suppositions. Even on European soil there are not wanting traces, if not of the full termination *mi* in thematic verbs, still of a more or less clearly discernible nasal, which we are quite justified in regarding as the remains of the full termination.

In Latin, it is true, traces of this kind, such as Bergk (Ztschr. f. Alterthw. 1835, p. 297; Philologus, xxi. 597) discovers in the older language, are not well authenticated. Plautine criticism and Corssen too (i.² 267) count *faciom*, *dicom*, *videom* and the like mere copyists' blunders. But the Slavo-Lettish languages show, as Kuhn has most clearly proved, the effects of the term. *-mi* in this place in the nasal vowel *ą* (pronounced like the Fr. *on*), e.g. Ch.-Sl. *vezą*=Lat. *veho*, and also in *u* in the Lith. *vežú* which is to be explained as the result of the dulling influence of the nasal. It thus becomes extremely probable that Greek 44
too has lost a nasal after the *ω*, and that this nasal came out of the fuller term. *mi*, just as the *s* of the 2nd sing. did from *si*.

Another controversy has arisen on the question of the original quantity of the *o*-sound before the term. was dropped. We have no right to assume *prima facie* that the long quantity we find in the Indo-Iranian vowel belonged to Greek as well. Even Bopp (Vergl. Gr. § 434) thinks it possible that the Skt. *bharâ-mi* had a Gk. *φέρο-μι*, just as the 1st pl. *bharā-mas* had a *φέρο-μες* corresponding to it, though he prefers himself to assume a *φέρω-μι*. Ascoli ('Di un gruppo di desinenze indo-europee,' Istituto Lombardo, Apr. 1868) does not hesitate to regard the form Bopp held possible as the real one; and it cannot be denied

that in that case the parallel, not only between singular and plural, but also between active and middle, comes out more clearly, nor that of the European languages there is not one that shows any distinct evidence of a long vowel existing before the termination was dropped. At the same time it is not easy to explain this long vowel. Ascoli conjectures that the presupposable *a-mi* took first the form of *a-vi*, then that of *a-v*, and finally of *a-u*, and so *ω*. But the change of *m* to *v* is not sufficiently established for this period and this branch of languages, any more than is the origin of a Græco-Italic *ō* from *av*. More particularly, however, is it hard to see why the same consonant *m* should when fulfilling the same function have met with three separate fates, i.e. of being preserved in *ἵστημι*, *ἐθέλωμι*, *ἐθέλοιμι* as in the Lat. *su-m*, *inqua-m*, of changing to *v* in the above-mentioned forms, and to *ν* in the Greek preterite: *ἔστη-ν*, *ἤθελο-ν*. I therefore think it more probable that between the fuller **φέρο-μ* and the actual *φέρω* there came a form something like the Ch.-Sl. in *ǫ* (*berǫ*), though, beyond *ἐγών*, *ἐγώ*=Skt. *ahám*, primary form *agham*, which has been already compared by others, there is no certain instance of the change of a final *om* to *ō*. The Homeric *δῶ*, which we might be tempted to derive from *δομ* (Joh. Schmidt, Voc. i. 113), is better regarded as an abbreviation of *δῶμα*, i.e. *δεμ-μα*, *δομ-μα*. Why **φέρο-μ* did not become **φέρον*, as *ἔ-φερο-μ* became *ἔ-φερο-ν*, I cannot say.

45 ## 6) The secondary *ν*.

In a considerable number of languages we find the four secondary endings *m*, *s*, *t*, *nt* confronting the primary *mi*, *si*, *ti*, *nti* with the greatest regularity in the three persons of the sing. and in the third of the plural. After this has been set forth so completely and synoptically in the works of Bopp and Schleicher, it would, I think, be superfluous to prove it over again. The fact that no single family of the whole stock is quite without this distinction between primary and secondary endings, as may most easily be seen from Schleicher's table affixed to §§ 269–277, and that the primary forms always attach themselves to the indic. present and perfect, and the secondary to the preterite, and are fond of showing themselves in the potential or optative, leaves no room for a doubt that this twofold formation existed before the language of our stock ceased to be one. Bopp, when (ii.² 270) he expresses the opinion that the weakening of *mi* to *m* and the same process in the case of the other terminations belongs 'not to the time in which the linguistic organism was still in all parts at its prime of health' or, as he says directly afterwards, 'not to the youth of the stock,' may have been thinking only of periods before the separation of the languages. What a variety of changes the organism of the primitive Indo-Germanic language must have gone through before it arrived at the shape which was the prevalent one immediately before the separation, I have shown in my treatise 'Zur Chronologie.' Moreover, it is only when the object of a form begins to be frustrated that we have any right to talk of want of health and freshness in language. Now the power of marking the first person singular is not impaired by the weakening of *mi* to *m* any more than by the earlier weakening of *ma* to *mi*. On the contrary, the nice distinction between *mi* and *m* is evidence of most vigorous mind in the language, and, inas-

much as the former takes its place in the present and the latter in the preterite, this weakening is made use of to satisfy the need for distinctions. Still, no doubt the first motive for the change was, as Bopp conjectured, a phonetic one. The extra burden of the augment at the beginning of the word brought about a lightening of the end: *dadā-mi*=δίδω-μι, but *á-dadā-m*=ἐδίδω-ν. It is possible that the shorter endings then gradually 46
spread farther from the preterite. We have already seen that they did not always prevail in the optative.

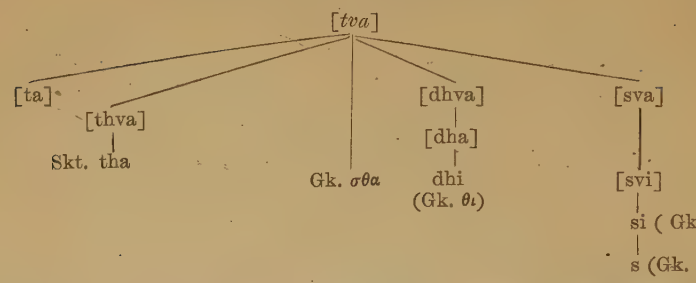
Greek phonetic laws demanded that a final *m* should become *ν*, or, to speak more correctly, a mutable nasal, which only remained a labial before a labial initial in the next word, as ἔπαθομ πολύ,[2] and guttural before a guttural, as ἔφυγογ κακόν, and dental before a dental, as ἔλεγον τότε, and dental also before vowels, as εὗρον ἄμεινον, and at the end of a sentence. Outside the preterite *ν* occurs as the termination of the 1 sing. in the optative, without exception in that of the verbs in μι (εἴη-ν) and those analogous to them (φιλοίη-ν), and but seldom in the ordinary verbs with the thematic vowel. The old grammarians, as Lobeck (El. i. 330 ff.) tells us, regarded those 1st persons, like τρέφοιν, which were known to them, as syncopated—from τρεφοίην. Lobeck quite agrees with this doctrine (El. ii. 140); although the presupposed *τρεφοίην or the like never occurs, and it is only in the contracted verbs and in the perfect that it is to be found (δρῴην, ἐκπεφευγοίην, Soph. O. R. 840; Matthiae, i. 442 f.). Far more correct is the insight shown by Buttmann (Ausf. Gr. i.[2] 355) and I. Bekker (Hom. Blätter, i. p. 111), both of whom saw, what was indeed not very hard to see, that this form in οιν was more regular than that in οιμι. Still there are only two clear and undoubted instances of this form: Euripides in the E. M. s. v. τρέφοιν, ἄφρων ἂν εἴην, εἰ τρέφοιν τἀ τῶν πέλας, and Cratinus ap. Suidam s. v. ἀμάρτοιν, ποδαπὰς ὑμᾶς εἶναι φάσκων, ὦ μείρακες οὐκ ἂν ἀμάρτοιν; with the remark καὶ ὅλως σύνηθες αὐτοῖς τὸ τοιοῦτο. Besides these there are the more or less probable conjectures of G. Hermann on Eurip. Helena, 271, of λάβοιν for the unmeaning λαβεῖν of the M.SS. (Kirchh. λάβον); of Dindorf, Eurip. fr. 362, of the same for the same λαβεῖν of the M.SS.; of Nauck, Aristoph. Byz. p. V., of the like forms in other passages.

Second Person Singular. 47

In this person there is considerably greater variety in the forms assumed by the termination, and their true nature is therefore far harder to fathom.

We must start from *tva*, the stem of the pronoun of the 2nd pers., as the original termination. As this syllable was a heavy one for a termination and the dental before the *v* altered in many ways, and as the vowel too sometimes remained, sometimes weakened itself to *i*, and in the end disappeared altogether, there arose, it appears, a series of phases of the same primary form which may be represented to the eye by the following tree:—

[2] The habit the Greeks had of accommodating the nasal to the following word is well known to be richly attested by inscriptions and manuscripts, and needs no further notice. Cp. *inter alia* Kühner, *Ausf. Gr.* i. 226.



The purely conjectural forms, some of which, however, we shall meet again in composition with others, are in square brackets, the rest actually occur. The *tv* has been transformed in three ways :—

1) By the simple loss of the *v*. The form *ta* appears in the formation of the 2nd sing. imperat. in *tā-t*=Lat. *tō-d* : Skt. *váha-tā-t*=*vehi-tō d*. We shall have some traces to show of this formation in Greek when we come to the imperative. The *-ta* occurs again in the 2nd dual.

2) By *aspiration*, and that, it seems, in two different periods :

a) It is highly probable (cp. Principles, II. 21) that there was only a *soft* aspirate in the Indo-Germanic period. As then softening went hand in hand with aspiration, *tva* became at that early time *dhva* and later *dha*, *dhi*. This is how it happens that in the imperative a Gk. θι is confronted 48 by a Skt. *dhi* (*κλῦ-θι*=*çru-dhi*).

b) At the same time the *tv* seems to have survived in certain forms intact. In this way there arose on oriental soil *thva*, *tha*, on Greek θα, on Latin *ti* (2 sing. perf. act), and on Teutonic *t* (Goth. *nam-t* thou takest). This aspiration is explained by Pott (Zählmethode, p. 216) by reference to the aspirating power of the *v* in Zend (Justi, p. 364, § 86), as the result of which, e.g. the possessive of the pron. of the 2nd pers. *tū-m* (=Boeot. *τού-ν*) takes the form *thva*.

3) By *assibilation*. In this way *tva* became *sva*, just as this pronominal stem appears in the Gk. dual as σφω, a form which can only have come from *tva* by way of an intermediate *sva*. The *a* degenerated to *i* and so arose *svi*, with loss of the *v si*, and finally the secondary *s*.

The multiplicity of these transformations is startling at first sight. But the fact that the same consonants recur in the structure of the plural in the active and in that of the 2nd persons in all numbers of the middle will reassure us. Most probably the various main phases arose at different times and took shape in one way or another under somewhat varying phonetic conditions, thus furnishing in their variety itself the means by which later generations could mark the distinctions they needed. This practical utility secured them all a permanent existence, and that the more readily because all consciousness of their origin must by this time have been lost.

In Greek we have to deal mainly with three phases of the original termination ; σι, ç, and θα. The fourth, the θι of the imperative, we may leave till we come to that mood.

1) σι retained.

In Sanskrit, Zend and Church-Slavonic the termination has survived with but very small phonetic modifications :—

Skt. *bhára-si*=Zd. *bara-hi*, Ch.-Sl. *bere-ši*=Gk. *φέρεις*.

In Greek it is only the verb substantive that has the full termination, and even this almost exclusively in Homer, where, however, its metrical convenience secures its frequency. It occurs, moreover—and this is a fact 49
which deserves notice in connexion with other antiquated forms of the Homeric dialect[3]—at four different places in the verse :

a) most frequently in the weak caesura in the third foot
A 176 *ἔχθιστος δέ μοί ἐσσι διοτρεφέων βασιλήων* : cp. E 890
A 178 *εἰ μάλα κάρτερός ἐσσι θεός που σοὶ τό γ' ἔδωκεν*

b) at the end of the verse
E 645 — — *οὐδ' εἰ μάλα κάρτερός ἐσσι*

c) in the second foot
Z 123 *τίς δὲ σύ ἐσσι φέριστε* ;

d) in the fifth foot
Z 215 *ἦ ῥά νύ μοι ξεῖνος πατρώιός ἐσσι παλαιός.*

The form *εἶ*, which arose from the weakening of *ἐσσί ἐσι*, and which was later the commonest, does not occur as early as Homer, while *εἶς*, or, as the better authenticated accentuation for antiquity is, *ἔις*, enclitic *εἰς* (La Roche Homer. Textkritik, p. 241), only occurs in places where *ἔσσ'* would be admissible :

Τ 217 *κρείσσων εἰς ἐμέθεν*
Π 538 *λελασμένος εἰς ἐπικούρων*
Φ 150 *τίς πόθεν εἰς ἀνδρῶν* ;

So too at Π 515, Ω 407, *α* 207, *δ* 371, *ω* 257. *ρ* 388 *περὶ πάντων εἰς μνηστήρων* is the only place where it would not. This fact, noticed also by Leo Meyer, Ztschr. ix. 374, is no doubt the reason why Ahrens in his Griechische Formenlehre does not mention the second form at all. Some scruples are, it is true, raised against the attempt to exclude the form *ἔις* altogether from Homer by the fact that it is undoubtedly New-Ionic (Bredow de dial. Herodotea, 403), and consequently may occur in the Homeric poems by the side of the older *ἐσσί*, just as possibly as several other later forms by the side of earlier ones.

It should be remarked, moreover, that *ἐσσί* was also Syracusan, and that the apostrophised *ἐσσ'* occurs in Epicharmus (fr. 125 Ahr., Ahr. Dor. 318). In Pindar, Theocritus, and Theognis *ἐσσί* may be regarded as a reminiscence of Epic usage.

The personal termination has been completely lost in *εἶ* thou art, and also in the Attic *εἶ* thou wilt go, whether on the analogy of the former, or, as seems to me more probable, by the same expulsion of the 50
σ : **εἶ-σι*, **εἰ-ι εἶ*, I cannot decide.

For the loss of the *σ* in these forms we have a complete analogy in the Lithuanian. This language has but very rarely retained the termination *-si* (Schleicher, Comp.[3] 658), while as a rule it has, after the expulsion of the *s*, contracted the preceding thematic vowel *e* with the *i* of the termination into the diphthong *ë*. **vežë*=*vehis* (we may conclude from the reflexive *vežė-s*=*veheris* that **vežë* did exist), and thus is a formation completely parallel to the Gk. *εἶ*, and bears to the Ch.-Sl. *veže-ši* the very same relation borne by *εἶ* to the *ἐσι* which we deduce from *ἐσσί*.

[3] Cp. Leskien on the Genitive in *οιο*, Jahn's Jahrb. 1867, p. 1 ff.

The effect produced by the final ι in the diphthong in the preceding syllable (φέρεις) will have to be discussed later in connexion with the thematic vowel.

2) A simple sigma.

The simple sigma belonged no doubt originally only to the secondary forms: ἔ-φερε-ς=Skt. *â-bhara-s*. But there are other languages in which it takes the place of *si*, as in the Lat. *vehi-s*, Goth. *vigi-s*. Hence we need not be surprised at τίθης, δίδως, and δείκνυς; the less so that if the termination had been retained entire, the Ionians at least would have had no means of distinguishing the 2nd pers. sing. from the third. The loss of the final ι after σ may be compared with that in the dat. plur. λόγοις for λόγοισι.

3) θα or σθα.

This antiquated termination has long since been compared with the term. *-tha*, which in Sanskrit is confined, it is true, to the perfect. In Greek the use is a far more extensive one. The termination θα, which always has an σ before it, extends to the following forms:

a) The perf. οἶσθα, common Greek=Skt. *vét-tha*, Zd. *vôiçtâ*, Goth. *vais-t*.

b) 12 Homeric conjunctives, namely—

ἐθέλησθα A 554 and 15 other times in Homer in phrases like ἢν ἐθέλησθα, ὃν κ' ἐθέλησθα (cp. Hes. Ἔργ. 392)
εἴπησθα Υ 250, λ 224, χ 373.

51 All the rest occur but once, namely—

βάλησθα μ 221
βουλεύησθα I 99
δηθύνησθα μ 121
εὕδησθα θ 445
ἔχησθα T 180
ἵησθα K 67
πάθησθα Ω 551
παρεξελάσησθα Ψ 344
πίησθα Z 260
σπένδησθα δ 591.

c) 5 Epic, 4 Aeolic, 1 Doric indic. pres. and 1 indic. future.

τίθησθα ι 404, ω 476
φῆσθα Φ 186, ξ 149
δίδοισθα (Bekker,[2] δίδωσθα) or διδοῖσθα (La Roche Textkritik, 225) Τ 270
εἶσθα K 450, τ 69, ἔξεισθα ν 179
ἔχεισθα Sappho fr. 21 B.[3], for which perhaps Bergk in his note to this passage is right in conjecturing ἔχεσθα, cp. Theogn. 1316
φίλησθα ib. fr. 22
ἐθέλεισθα or ἐθέλησθα Theocr. 29, 4
ποθόρησθα ib. 6, 8
χρῆσθα used by the Megarian in Aristoph. Ach. 778
σχήσεισθα (cod. σχήσησθα) Hymn. in Cer. 366.

d) 5 indicative preterites

ἦσθα common Greek; here perhaps there has been an interchange with the perfect form which is *ásitha* in Skt.

ἔφησθα A 397 and elsewhere in Homer, and then common Attic. The corresponding form seems to have been Aeolic as well acc. to Apollon. Soph. p. 162, 25 s. v. *φῆσθα*: *ἄνευ δὲ τοῦ ι γραπτέον, ἐπεὶ καὶ οἱ Αἰολεῖς φέσθα λέγουσιν ἀντὶ τοῦ ἔλεγες*, where perhaps we ought to read *φάσθα*.

ἦεισθα quoted only from Plato, Euthyphr. 4 *ἐπῄεισθα*, Tim. 26 *διῄεισθα*.

ἤδησθ' τ 93, *ἤδησθα* in Attic writers, with the less well authenticated variant *ἤδεισθα*.

ἠρήρεισθα Archil. fr. 94, 3 B³. 52

e) Optatives.

βάλοισθα O 571

κλαίοισθα Ω 619

προφύγοισθα χ 325

εἴησθα Theogn. 715, *βλείησθα*=*βάλοισθα* Et. Gud. p. 103, 38.

This enumeration was necessary if we want a sure foundation for the analysis of the form. Of these 33 forms there are but 2 in which the *σ* before the *θ* can belong to the verb-stem: *ἦσθα* from the rt. *ἐς*, and *οἶσθα* from the rt. *ϝιδ*. In all the rest the *σ* belongs to the termination. This fact goes dead against Bopp's view (Vgl. Gr. ii.² 292), which has lately received what seems to me an inconclusive defence from Osthoff (Ztschr. xxiii. 320 ff.), that these two forms gave as it were the pattern on which the others were formed. Still less shall we be content to accept the view of the old grammarians and those who have ranged themselves with them in later times, that the *-θα* is a mere appendage assumed by the 2nd person when already formed. This doctrine is developed by Lobeck, Elem. ii. 266 ff., with no hint of doubt, under the head of Proschematismus. It can be traced back to Herodian, who, *περὶ μονήρους λέξεως* (ii. 950, l. 28, ed. Lentz), gives *οἶσθα*, which he regards as syncopated—from *οἴδασ-θα*—among the *δεύτερα πρόσωπα ἐκτεταμένα*. In later grammarians, e.g. in Gregorius Corinth. p. 581 (König), we hear of the *προσθήκη τῆς θα συλλαβῆς*, and the note to this passage contains references to later discussions of these forms. The ancients regarded this *προσθήκη* as Aeolic (Ahrens, Aeol. 129). The same doctrine has been expanded by Thiersch § 216 into a new theory. He talks of the addition of the adverbial termination *-θα*. In such a form even Bopp (ut sup.) does not give it an unconditional denial: 'If we are, as Thiersch supposes, to regard the *-θα* in all second persons as an added adverbial termination, I should think I saw in it the Sanskrit suffix *-ha* (for *dha*) and the more frequent Send *dha*, to which at § 420 we referred the Gk. *-θα* in *ἔνθα*, *ἐνταῦθα*. We should then have to suppose that the pronominal stem to which the suffix *-θα*, in forms like *τίθησθα*, 53
ἦσθα would belong (possibly the *i* of the Send *i-dha*, here p. 241), had been suppressed, and that the adverb had lost its meaning.' But in what other place is there a trace to be found of such appended adverbs? Unlike the nouns, in which there evidently resides an exuberant power of

producing repeated derivatives by a process we call expansion, the verbal forms are finished and self-contained. With the exception of the evident reduplication in the imperative and the composition in the middle terminations, the personal terminations took no additions to their original shape, and they did not go beyond their own resources either for the reduplication or the composition, but selected terminations from among themselves. Every expansive suffix must of necessity have introduced confusion. Besides, this theory would compel us to separate *οἶσθα* and *ἦσθα* from the corresponding Sanskrit and Zend forms with which they so strikingly accord, for *vét-tha* and *ásitha* have *th* and not *dh*, and can certainly not have the same origin. Lastly, the analogy, which has still to be examined, between the Gk. *σθα* and the Lat. *stī*, and the Goth. *t* or *st* must be abandoned, i.e. we must give up all that gives us most promise of a firm standing-ground.

Buttmann showed in this question, as in so many others, a nice perception of the origin of linguistic forms. In his Ausf. Gr. (i.[2] 344 note), he attacks the view of the old grammarians that *-θα* was appended, and prefers to consider '*-σθα* as the original termination which was subsequently worn down to *-θα*.' So much at least is past contradiction, that the *σ* is an integral part of the termination, and that the assumption of an unmeaning appendage is in itself irrational. But where did the *σ* of the other 31 forms come from? Schleicher (Comp.[3] 655) regards *-θα* as the representative of the Skt. *-tha* (originally *-tva*), and ventures an explanation for the preceding *σ* which to a certain extent is like that of the old grammarians. 'It seems that to the ordinary form (e.g. *ἔχεις*) this *-ta* was further added, and that after *ς* it became *-θα*. This formation must be a late one, and perhaps dates from the time when the perfect still generally retained its original *-ta* which has survived e.g. in *οἶσθα*.' If so, we should certainly have no idle appendage, but a reduplication of
54 the termination; but for this there is no apparent inducement, and it is altogether improbable that in Greek, where only one true perfect-form of the kind survives, the analogy of the perfect had so much force.

Another explanation may be suggested. In other cases in which we find an *σ* in verbal forms we are accustomed to trace it to attached forms of the rt. *ἐς* be. Now *-σθα* could just as well be a shortened *ἐσ-θα* as the *-σαν* in *ἔδοσαν* a shortened *ἔσαν*. If *-σαν* can make its way from its original position in the preterite into optatives (*δοίησαν*) and imperatives (*ἱστωσαν*), why should not *ἐσθα* into conjunctives, optatives, and preterites? This view would find especial support in the Lat. *-stī* of the perf. e.g. *vīdī-stī*, which, moreover, has its corresponding plural *-stis*. This explanation seems the more natural in the case of the Lat. perf. from the fact that it is universally allowed that the 3rd pl. in *-runt* owes this termination to composition with *-sunt*. In fact, we cannot but accept the Lat. *-stī* and the Gk. *-σθα* as identical. *-stī*, in O. Lat. also *-stei*, must be referred to a pre-Italic *-stā*, whose *ā* we may venture to compare with that of *vétthā* (for *vēttha*)=*Fοῖσ-θα*, a Vedic form of which we have a not quite isolated example (Kuhn, Ztschr. xv. 406). In Zend we find corresponding forms, such as *vôiç-tâ*, *frá-dadâ-thâ* (*pro-didi-stī*), where, it is true, the long final vowel has been referred to the habit of the Gâtha dialect to lengthen all final vowels. Of our right to regard a Lat. *ī* (*ei*) as the representative of an original *ā*, I have treated in 'Studien,' i. 1, 247;

vīdī by the side of the Aeolic *Foίδη-μι* is a proof of it which can hardly be gainsayed. Cp. besides Walter, Ztschr. xii. 413.

I believe then, whatever view is taken of the origin of the termination, that we may conclude that there was in the 2nd sing. a fuller termination[4] *tvā*, to which we shall find parallels as we go on in the forms of the dual and the imperative. If we suppose the *ā* to have been long from the beginning, we have less difficulty in explaining why this vowel 55
appears in Greek as *α*, and not as *ε* or *ι* instead. Again, there can be no doubt that a third European language corresponds here with Greek and Latin, and that is Teutonic. The Goth. *saisô-st* thou sowedst would form a complete parallel to a **sesi-stī* (like *dedi-stī*), which Latin usage would readily allow us to imagine. It is well known how this *-st*, in the course of the history of the Teutonic language, gradually prevailed over all others. Still, however sure I am of these comparisons, I am far from claiming certainty for my suggestion that the term. *-σθα* arose out of a presupposed **ἐσθα* thou art. The main objection I see to it is that *-σθ* occurs in some other personal terminations besides, e.g. in the 1st plur. middle *με-σθα*, and in the middle infinitive in *-σθαι*, where the primary form shows a simple aspirate. We shall have to return to the *σθ* further on.

If our refutation of the appendage-theory holds good, it follows as a practical result that the *ι* in conjunctives in *ησθα* has crept in by mistake. In *εἶπῃς*, as we shall see further on, the *ι* owes its existence solely to the echo in the preceding syllable of the *ι* of the full termination *-σι*. Now, as *εἴπησθα* never had an *ι*, it is clear that it could have had no echo of one. There are left, it is true, one or two strange formations about which we have no choice beyond either regarding them as copyists' errors or as anomalies due to a mistaken imitation of Homeric forms. The former view is suggested by Bergk, Lyr.[3] p. 885, for the indicatives *ἔχεισθα* (Sappho 21, Theogn, 1316), *σχήσεισθα* (Hymn. in Cer. 366), for which he holds *ἔχεσθα* and *σχήσεσθα* to be the true forms. It was certainly bolder still with Bekker to alter the Homeric *διδοῖσθα* T 270 to *δίδωσθα*, as this change cannot be supported by the supposition of a mistake in reading an old character. *ἐθέλεισθα* or *ἐθέλησθα* in the Aeolizing poem of Theocritus (29 v. 4) comes under the same head as the *ἔχεισθα* in Sappho, though it is more likely than this to have been an antiquarian's mistake. The latter supposition must without doubt be made with reference to forms like *ἦσθας*, *οἶσθας*, which occasionally appear in M.SS., the former e.g. in the Ven. A at E 898, but rejected by Aristarchus (Ariston. on A 85, cp. La Roche Homer. Textkritik, 320 ff.). Notwithstanding, Nauck (Eurip. Stud. ii. 71 ff.) has re-adopted these forms and actually tried to 56
introduce them into Euripides.

Third Person Singular.

With regard to Schleicher's view that *-ta*, the original termination of the 3rd sing., appears sometimes, in the perfect for instance, as *-a*, some-

[4] The assumption of fuller phonetic structures by the side of more slender ones, formed to give greater stress to the word, seems to me specially reasonable in the case of pronouns. Sayce, *Principles of Comparative Philology*, London, 1875, p. 25, regards '*emphasis*,' the counterpart of '*laziness*,' as an early factor in the formation of language. The fuller form could then be used subsequently for the termination indiscriminately with the more slender one.

times as *-ti*, I may refer the reader to what I have said on p. 24 when dealing with the 1st pers. sing. I consider *-ti* to be the oldest mark we have of the third person, as *-mi* is of the first, and I see no reason to doubt that it grew out of the pronominal stem *ta*, which appears in Greek as *το*. In the language as we know it this stem is not used for the personal subject, and its place is taken by *sa*=Gk. *ὁ*; but this makes no difference. When we find the stem *το* in the Homeric and Doric *τοί* taking the place in the nom. plur. of the later stem *ὁ* of common Greek, we may surely venture to assume the like use of the same stem in the singular too to have prevailed in the primitive period in which verbal inflexions had their origin. Analogies to this (Lith. *ta-s* this, Lat. *is-te*, Ch.-H. *tă*) are given by Bopp, Vergl. Gr. ii.[2] 132.

The termination *τι* is treated in three different ways in Greek. Either it remains unchanged, or it becomes *σι*, or it disappears.

1) *τι* preserved intact.

The only instance common to all Greek dialects is in *ἐσ-τί*, where the preceding *σ* preserved the *τ* intact, as it did in *πίσ-τι-ς*, *πύσ-τι-ς*. The Dorians, however, as elsewhere, retained the *τ* here to a greater extent: see Ahrens, 312. To the forms like *δίδω-τι*, *τίθη-τι*, *ἀφίη-τι*, *ἴσα-τι*, there adduced from inscriptions, fresh instances have since been added from Delphic inscriptions (Berichte der k. sächs. Ges. d. Wissensch. 1864, p. 223). These forms are of rare occurrence in the poets. *ἠτί*=*ἠσί*, he says, is found in Alkman fr. 139 Bergk[3], *ἐφίητι* in Pindar, but only once
57 Isthm. ii. 9 (Boeckh, Pind. i. 2, 292), *δίδωτι* in Simonides fr. 18 Bergk[3], *τίθητι* in Theocritus, iii. 48, *ὑφίητι*, iv. 4. Matthiä, i. 489, quotes a few instances of *ἀποδίδωτι* from the Doric prose of Timaeus Locrus.

2) *σι*.

a) There is no need to quote instances of its occurrence in the indic. pres. of the verbs in *-μι* in forms like *φη-σί*, *τίθη-σι*, *δίδω-σι*, *ὀνίνη-σι*, *πίμπλη-σι*, *ἄη-σι*, *εἶ-σι*, *ζεύγνυ-σι*, *ὄλλυ-σι*, *ῥήγνυ-σι*, which occur from Homer's time on to the latest period of Attic Greek, though even here there are not wanting by-forms which follow the usual mode of inflexion. This formation may therefore be said to be Ionic in the fullest sense of the term, and it even penetrated to Pindar's language, while the Dorians preserved the *-τι*, and the Lesbian Aeolians knocked the termination off altogether and said *τίθη*, as we shall see presently. It is only in *ἠ-σί* he says (Sappho, 97 Be.[3]), that we find a trace of this termination even in this stem.

b) In conjunctives the Homeric dialect often retains the termination *σι*. I. Bekker (Hom. Bl. i. 218) gives 75 forms, not reckoning compounds and synonymous pairs of forms. Of presents of both of the main conjugations there are *ἄγῃσι*, *ἀείδῃσι*, *ἐθέλῃσι* (also in Hesiod), *τέρπῃσι*, *τάμνῃσι*, *ἴῃσι*, *μεθίῃσι*, *φῇσι*; of active aorists of every formation, *ἀγάγῃσι*, *λάβῃσι* (also in Hesiod), *λάθῃσι*, *ἕλῃσι*, *κάμῃσι*, *δώῃσι* or *δῷσι*, *ᾗσι*, *παύσῃσι*, *πέμψῃσι*. We may add the perfect *ἐρρίγῃσι*, which Bekker has omitted (Stier. Stud. ii. 128, 353). Sometimes there is a clear connexion between these longer 3rd persons and the longer 1st or 2nd persons:

ἐθέλωμι	ἐθέλησθα	ἐθέλῃσι
εἴπωμι	εἴπησθα	εἴπῃσι
	βάλησθα	βάλῃσι
	εὕδησθα	εὕδῃσι
	ἔχησθα	ἔχῃσι
	ἴησθα	ἴῃσι
	πάθησθα	πάθῃσι
ἀγάγωμι		ἀγάγῃσι
τύχωμι		τύχῃσι

The number is not much increased by later poets : *ῥέζῃσι* Hesiod fr. 195 (Rzach Dialekt des Hesiod, p. 438), *ἐρέθῃσι* Hymn. in Martem (viii.) 14, *ἰῇσι* Theogn. 94, *ὑποπιμπρῇσι* (?) Aristoph. Lysistr. 348, *πίπτῃσι* Plato Com. ap. Eustathium ad Iliad. p. 1161, *ὑποπτεύῃσι* Theocr. xxiii., 10, 58 *θαλέθῃσι* Nicand. Ther. 832, *κατακτείνῃσι* Quint. Smyrn. Θ 153, *ὄρσῃσι* Apollon. Rhod. III. 1039, *ἀμφιέσῃσι* Orph. Lith. 273, most of which instances I have taken from Lobeck, Elem. ii. 264. Even the forms already used by Homer occur but rarely in later poets. We may add the forms given by Lobeck, Rhemat. 183 from verbs in *-αω* : *ὑπτιάῃσι*, *σκιάῃσι* (Arat. 795, 864), and similar rarities of a still later time. Lobeck upholds the view of the ancients that all these forms had arisen by *ἐπέκτασις* from the ordinary ones, and hence he combats the view advanced as a conjecture by Buttmann (Ausf. Gr. i.[2] 352; cf. Krüger, Dial. § 30, 1 note 4), and more confidently by Thiersch, Gr. p. 352 and Göttling on Hesiod Theog. v. 60, that these forms have no right to the *ι* subscript. It is true that the authority of good manuscripts, and that of Herodian (cp. on O 359), is on the side of the retention of the *ι*. But all that this proves is that the theory of even the best grammarians required it to be written. For it is certain that in Herodian's time there was no difference of pronunciation between *η* and *ῃ*. The authority of these men then would not prevent us from rejecting the *ι* here any more than in the case of the 2nd sing. forms in *-ησθα* if there were really no way of explaining it. In my Tempora und Modi, p. 23, I expressed a decided opinion that it ought to be rejected, because I then regarded the epenthesis as a transposition of the *ι* from the final syllable to the preceding one. I have since come to a different, and as I believe, more correct opinion on the subject, an opinion which I have stated in my Principles II. 337. I now regard the epenthesis as an echo of the *ι* in the syllable preceding it, which, as is shown by *εἰνί* (from *ἐνι*), is not necessarily connected with the disappearance of this vowel from its original place. **ἄγῃτι*, *ἄγῃσι* are therefore forms admitting of quite a simple explanation. They bear to the more primitive **ἄγητι* precisely the relation that the Zend conjunctive form *avâi-ti* does to the Skt. *ávā-ti* (rt. *av*). The epenthesis is, it is true, not a necessary or irresistible affection, only one which *may* attack a sound, and one to which long vowels are less liable than short ones. Still Aeolic forms like *γέλαιμι* for **γέλᾱ-μι* and the like, e.g. *χρα-ι-σ-μέ-ω* from **χρα-ι-σιμο* for **χρα-σιμο*, prove that the length 59 of the vowel does not exclude the possibility of this affection. Now as we have besides the analogy of the indicative, i.e. **ἄγῃτι* : **ἄγῃσι* :: *ἄγει-τι* : *ἄγε-τι*, I think we shall do well to follow the tradition and leave the *ι* subscript in undisputed possession.

c) An isolated Optative.

Such, it seems, is *παραφθαίησι* K 346, which is defended by I. Bekker

(Hom. Bl. i. 218 note) against alterations (e.g. *παραφθήησι* Thiersch, La Roche). The form was perhaps invented by a bard who thought *-σι* an addition that might be used on occasion even in the optative. I could hardly venture to assume in the case of so isolated a form in a lay of the Iliad that is evidently not one of the oldest, that we have in the *-σι* a real old companion to the *-μι* of the 1st sing. opt. Syntactically the conjunctive is just as admissible here as the optative, and hence it is not impossible that, as Joh. Schmidt suggests (Ztschr. xxiii. 299), *φθαίησι* is a conjunctive of a present **φθαίω* that occurs nowhere else.

d) Indicatives in *-ησι*.

It is very generally held that there are also indicatives in *-ησι* from verbs of the thematic conjugation. It is true that Buttmann (Ausf. Gr. i.[2] 498) has pronounced against such forms in the Homeric poems, showing that all that were thought to be indicatives might be conjunctives. This applies particularly to Γ 111 ff. In Hymn. Homer. xxi. 15 the gap that immediately precedes renders a decisive judgment impossible. In Ibycus these indicatives seem to be better established. It is true that Aristarchus by his 'diple' at E 6 *παμφαίνῃσι, ἡ διπλῆ ὅτι ἀντὶ τοῦ παμφαίνῃ. πλεονάζει δὲ Ἴβυκος τῷ τοιούτῳ* points to nothing but a conjunctive. But the *σχῆμα Ἰβύκειον* in the language of the later grammarians and rhetoricians, especially in Aelius Herodianus (Spengel, Rhetores Graeci, iii. 101), Lesbonax (De Figuris, p. 166 Valcken.), Heraclides, in Eustath., 1576, 20, was the specific name of a grammatical figure, that is, it was believed that Ibycus used conjunctive forms in the sense of indicatives. Instances of this which we actually find in our fragments are fr. 7 Be.[3] *τᾶμος ἄνπνος* (?) *κλυτὸς ὄρθρος ἐγείρησιν ἀηδόνας* and fr. 9 *φᾶμις ἔχησι βροτῶν* and in Bacchyl. fr. 27 *γλυκεῖ' ἀνάγκα σευομένα κυλίκων θάλπησι θυμόν*. We must meanwhile admit with Bergk, with reference to the first passage, that the fragmentary form in which it reaches us precludes the possibility of passing a decisive judgment upon it. It is possible after all that the grammarians made a mistake and that they were all the time instances of the conjunctive which was used in the Homeric fashion in a certain kind of relative sentences. But the statement is made so often and in such precise terms that it is hard to believe that they were so mistaken.

Buttmann saw no objection to the supposition of such indicatives in *-ησι* in the 'Dorico-Aeolic dialect,' and appealed to some supposed indicatives in *-ης* for *-εις* and *-η* for *-ει*. But the genuineness of such forms is successfully impugned by Ahrens (Aeol. 91). Corssen's attempt too to find a support for this *η* in the 'vowel-intensification' of which so much is heard and so little seen, must be held to have failed.[5] It is hard to imagine how a language of such nice distinctions as Greek is, which in all other cases consistently reserves the long vowel for the subjunctive, should in this one instance have been so careless as to lengthen the thematic vowel in the indicative as well.

If then we cannot believe in the actual existence in living speech of indicatives like *ἔχησι* we must take one of two courses. Either we must

[5] Corssen discusses these forms at great length in his posthumous work, *Beiträge zur italischen Sprachkunde*, p. 479. In his attempt to establish *ἔχησι* and the like as real forms of *vulgar* Doric, this meritorious scholar (who, however, was too much inclined to make short work of questions of sound-change in Greek) quite forgot that the Dorians never put *σ* for *τ* in the third person singular.

adopt Ahrens's view (Dor. 303) that these formations were 'a poetis Homeri locos nonnullos male interpretatis per imitationem procusa.' (It must be admitted that the supposition of such an origin in the case of so old and so little learned a poet as Ibycus is rather a violent one.) Or we must assume them to be the mistakes of an early copyist. If we do so, the most natural supposition is that they represent forms in *-εισι*. *ἔχει-σι*, *ἐγείρει-σι* are forms which analogy would warrant us in assuming. So Westphal, Meth. Gr. ii. 38. Ahrens is ready, it is true, with an objection to this view : 'in Dorica Rheginorum dialecto illae formae certe in *τι* pro *σι* exire debebant,' an objection which seems to me unanswer- 61
able. If, therefore, these remarkable forms are genuine, this dialectological argument shuts us up, it seems, to the explanation given by Ahrens.

3) Loss of the termination.

a) In present and perfect forms.

The loss of the termination in the verbs in *-μι* among the Aeolians is remarkable (Ahr. 138). The grammarians mention *τίθη*, *γέλαι* (1 sing. *γέλαιμι*), *δίδοι*, though their testimony varies a good deal as to the diphthong or vowel. These forms serve as a stepping-stone to the ordinary Greek forms of the thematic conjugation : *φέρει*, *ἔχει*, which, as we shall see, arose from **φέρειτι*, **ἔχειτι*, by way of **φέρειτ*, **ἔχειτ*. There was, I am inclined to believe, a reciprocal influence exercised by the three singular forms upon each other. After one of them had become dissyllabic in these verbs, the others followed in its train.

In the perfect the termination disappeared throughout in Greek as in Sanskrit : *ǵa-ǵāna*=*γέ-γονε*. So too in Zend, e.g. *dâ-dareça*=*δέ-δορκε*. Latin alone in its *ce-cidi-t*, *pe-pigi-t* (=*πέ-πηγε*), has preserved the *t*. The only trace of a 3rd sing. perf. with a personal termination is the Doric *ἴσᾱ-τι* he knows, which in its stem-formation stands apart from other perfects, and which will have to be examined minutely further on.

b) In the preterite, and in the optative which goes along with it, the secondary *t* originally survived alone as a final letter. So in Skt. e.g. *á-dā-t*, *á-dadā-t*, *á-bhara-t* ; in Zend *dā-ṭ*, *bara-ṭ* ; in Latin *era-t*. Greek phonetic laws compelled the *τ* to disappear : *ἔ-βη*, *ἐ-ἴδω*, *ἔ-φερε*, *ἤ-ει(ν)*. Kuhn's conjecture (Ztschr. xv. 404) that the *τ* first changed to *ϛ* and then disappeared is hardly justifiable. It relies on the analogy of primary forms like *τίθησι*, but these are confined to the Ionic main dialect, while the Dorians never changed *τ* to *σ* before *ι*. The loss of the final *τ* in ordinary Greek is completely distinct from the change above mentioned, which is confined to a single dialect. The same loss has been suffered by Old Persian : *a-dadâ*, *a-bara*. It is impossible to establish that the *ν ἐφελκυστικόν* of *ἔφερε-ν* is the remains of the vanished *τ*, since 62
the nasal addition is also made to *ἐστίν*, *φησίν*, *φέρουσιν*, *φασίν*, where it is impossible that it should have had an origin of this kind (Principles I. 68).

First Person Plural.

The termination occurs very often[6] in the dialect of the Vedas as *masi*, which later becomes *mas*, and again *ma*. The final vowel has been retained also in the Zend *mahi*, which shows the regular change of *s* to *h* : *vazā-mahi*=Skt. *váhā-mas(i)*.[7] Bopp (Vergl. Gr. ii.[2] 271) had

[6] According to Delbrück's calculation, far oftener than *mas*.

[7] If Joh. Schmidt is right (*Vocal.* ii. 279) in referring the O. H. G. term. *-mēs*

not made up his mind how *masi* ought to be analysed. He could not doubt that in the *m* was contained the pronominal stem shown in the singular. But he was inclined to regard the rest of the termination either as a plural nominative termination, on which view, however, an explanation of the *i* was impossible, or as the remains of the demonstrative pronoun *sma*, which pervades pronominal forms in many shapes. Pott's analysis, however (Jahrb. für wissensch. Kritik, 1833, p. 326), with which Kuhn (de conjugatione in MI, p. 29) and Schleicher (Comp.[3] 651) agree, is far more probable. It divides *ma-si* thus, interpreting it as I-thou, i.e. I and thou. This view has lately been attacked by Benfey, Ueber einige Pluralbildungen des Indo-Germanischen Verbums, pp. 10 and 14. He brings two objections in particular against it, both on chronological grounds. In the first place, he thinks the mode of composition therein assumed, i.e. the copulative, which supplies the notion of an 'and,' and was called *Dvandva* by the Indian grammarians, of too modern a date to be found in so primitive a termination. But we must not tie ourselves down here to the analogy of nominal composition, which, it is true, only shows cases of *dvandva* in its later stages. Noun composition is altogether a comparatively late phenomenon, but the pronominal stems on the other hand clearly showed from the very first a
63 disposition to run together in the most various ways. Latin knows no instance of *dvandva* in the noun—if we except perhaps the loosely compounded *su-ove-taur-ilia*—but pronominal forms like *quisquis*, *quotquot*, *utut*, are not uncommon. In Greek a nominal compound made up of a nominative joined to an accusative governed by a verb outside the compound is unheard of, but pronominal compounds with their separate members in this relation may be seen in *ἀλλ-ήλους*, *αὖτ-αυτον* (Sitzungsber. d. k. sächs. Ges. der Wissensch. 1864, p. 226). Cases of *dvandva* are unmistakeable in numerals like *δυώδεκα*=*duodecim*=Skt. *dvādaçan*. The plural nominatives (e.g.) *ta-i*=Gk. *το-ί* and *açvāsa-s* (i.e. *ἵπποι*) can hardly be otherwise explained than as formed from a copulative accumulation of pronominal stems, and Benfey will have to renounce all hope of explaining the termination *anti* in the 3rd pl., inasmuch as his prejudice in the matter compels him to reject the very simple one from *an* he and *ta* he, which makes it=*he* and *he*. Still less weight attaches to a second objection, which is drawn from the phonetic character of the syllables. *si*, Benfey holds, is a comparatively late shape assumed by *tva*, and it is incredible that the language should have postponed the formation of the plural until *tva* should have degenerated into *si*. No doubt; but why cannot we refer *ma-si* to an older *ma-tva* as easily as *si* to *tva*? We may assume, I think, that this comparatively late metamorphosis took place at about the same time in the 2nd sing. and in the 1st plur. Now of this still older *ma-tva* we find almost a superfluity of the clearest traces, as Schleicher and still more minutely Misteli (Ztschr. xv. 300) have not failed to point out. The *tva* of the sing. showed itself, we found, in a variety of shapes, and among others as *dhi*. And we meet with the same consonant in the 1st plur. middle, for which we may with certainty give *ma-dhai* as the termination. The *θα* of the Gk. *με-θα* forcibly suggests the *θα* in *οἶσ-θα*. Can it be an accident that we

to *ma-si*, * *mai-si* (with epenthesis), we have a trace left on Teutonic ground of this fullest form of the suffix of the 1st plur. act.

should find the same sound here that we find in the 2nd sing. ? Benfey's own explanation, that the 1st pers. plural springs from *I they*, and that of these two the 'they' is merely a mark of the plural, somehow in the way in which the English *she* is used to mark a feminine (*she horse*), is too extraordinary to procure acceptance, especially as there is not even an attempt made to produce evidence of the actual use of this *si* in the 64 meaning that is assumed for it.

Bopp has raised another objection to our view. It is based on the nature of the pronoun 'we.' 'When we say "we,"' he says with his usual acuteness, 'we far more often associate other companions with the I than the person or persons addressed.' For this reason he looks rather for 'I and he' in the 'we' than for 'I and thou.' But it often happens that the spirit that animates language catches at a single idea and chooses it with a tyrannous caprice from among many possible ones. Who knows whether in one of those languages of uncivilised peoples which lose sight of the essential in a superfluity of nice distinctions, there may not be two we's, one meaning 'I and thou,' the other 'I and he.' It may be that *ma-tva* may have had a companion form *ma-ta*; the latter may have gone out of use by some chance, and *ma-tva* have done duty for both, in somewhat the same way in which in the dual the masculine τώ takes the place of the completely obsolete feminine. Schleicher (ut supra) takes a similar view.

This *ma-si*, sprung, as we have conjectured, from *ma-tva*, regularly degenerates in post-vedic Sanskrit to *ma-s*, and in the perfect and in secondary tenses we find *ma*. There is not therefore quite the same strictness in the relation of *mas* to *ma*, as in that between other primary and secondary terminations, e.g. *mi* and *m*, *si* and *s*. Strictly speaking, *ma-si* is the primary form, of which *ma-s* is already a curtailment, which further weakening must be regarded similarly to that of σι to ς in δείκνυς. It is probable that at the time of the separation of the languages there still existed a *bhara-masi* but an *a-bhara-mas*. We need not be surprised therefore at being unable to discern any distinction whatever between the primary and secondary forms in Greek and Latin, both of which languages have lost all trace of the final vowel, or in any other European language either. The only form in use in Latin is *mus*, while Greek has either μες or μεν according to the particular dialect.

1) μες.

This is the Doric termination (Ahr. Dor. 291), the only one occurring on the Heraclean tables, and that too in the secondary forms: συνεμετρήσαμες (Nr. 5774, 10), κατετάμομες (ib. 14), κατεσφάσαμες (ib. 47, 51), 65 ἐστάσαμες (ib. 53), ἐπάξαμες (ib. 78), as also upon old Theraic and Cretan inscriptions in the primary forms Nr. 2448 ἐμβαλοῦμες, 2557 εὐχαριστῶμες, and is attested among others by Epicharmus, Sophron, and by Doric passages of the Lysistrata and Acharnians of Aristophanes. When we find μεν even in strict Doric, it is due no doubt to the influence of the poetical language common to all, or to that of Atticism. In Pindar μες does not occur (Boeckh, i.² 291), though it does in the more vulgar idiom of Theocritus, vii. 2 εἴρπομες, 12 εὕρομες, ii. 143 ἤνθομες. One example has been discovered in an Arcadian inscription (Le Bas-Foucart Nr. 328a, 16): ὁμολογήσωμες.

2) μεν.

Among the Aeolians and Ionians this is the only form of the termination. Bopp's conjecture (Vergl. Gr. ii. 280), that the ν came from ς, found an early opponent in Pott (Et. Forsch. ii.[1] 301). Bopp appeals to Prakrit, which shows the form *hi* corresponding to the Skt. *bhis* in the instrumental. Whether we have here a real change of *s* to a final nasalisation I leave an open question. But since we find not only a movable ν in Greek appearing often as a superadded nasal sound, but also, as will appear hereafter, an immovable one, it is a more probable supposition that here too the sibilant disappeared and the nasal was added subsequently, especially as a direct change of the sibilant to the nasal would be difficult to explain, and even unprecedented. μεν then is a termination of the stage of the Skt. *ma* and the Lith. *me*, while μες corresponds to *mas*. So too Schleicher Comp.[3] 652. The view advanced by Misteli in his otherwise most valuable essay on the terminations of the middle voice (Ztschr. xv. p. 321), that the ν, and in other forms even the Skt. *m*, is to be considered to be a compensation for a lost *t*, is based on no clear case of such a kind and has no intrinsic probability. The objection 'why did not other forms ending in a vowel, e.g. the voc. of the 2nd declension, receive similar nasal accretions?' (p. 330) is removed when we consider that language shows sporadic tendencies as well as inviolable laws of sound. The nasal accretion belongs clearly to
66 the former class. Greek has certainly no disinclination to a final ς, and yet λύετε stands by the side of the Latin *luitis*, and as certainly none to a final ι, and yet ἐστίν is found as well as ἐστί. Into more comprehensive attempts to explain the nasal, of which particularly Scherer's (Zur Gesch. d. d. Spr. 193) has been sufficiently confuted by Kuhn, Ztschr. xviii. 349 ff., I will not enter here.

Second Person Plural.

On the pattern of the 'I and thou' of the 1st plur. we should expect a 'thou and thou' for the 2nd plur.; a *tva-tvā*, that is, by the side of *ma-tva*. We find, however, only a monosyllabic termination, in which we have little difficulty in recognising the stem of the pronoun of the second person. In Sanskrit the termination is *-tha*, precisely identical, that is, with one of the singular endings above discussed. Here, as there, we can detect in the *th* the remains of a *tv*. There is just as little trace of any fuller termination in Zend, which varies between *-tha* and *-ta*, in the Greek τε, in the Ch.-Sl. and Lith. *-te*, or in the Gothic *-th*. Latin here, with its *ti-s*, which points to an older *ta-s*, outstrips all the sister languages. In this termination we may regard the *-s*, like that in *ma-s* (με-ς, *mu-s*), as the representative of the second pronominal stem of which we are in search. There is a corresponding form in the termination of the 2nd dual in Skt. *-tha-s*, where the *th* gives satisfactory proof of its near relation to the *-tha* of the plural. We shall constantly be led to the conclusion that plural and dual forms did not begin by being fundamentally distinct. The second *tva* then, we may presume, was volatilised in exactly the same way as in the 1st plur., first to *-si*, then to *-s*, and then to nothing at all. It is probable that Schleicher (Comp.[3] 659) is right in seeing a still more perfect representative of the original termination *tva-tva* in the 2nd plur. imper. in *-to-te*, Umbr. *-tu-tu*, in which forms

both syllables are preserved bodily, the first being 'lengthened for emphasis.'

Corresponding to the Latin *tis*, which the *te* of the imperative proves to be a weakening of *tes*, we might expect to find a Greek τες, and such 67
a form has been actually maintained to exist in the Homeric poems. Thiersch showed a correct insight into what the structure of the language demanded, but he was wrong, nevertheless, in conjecturing that there were traces of this τες left in Homer (Griech. Gr. vorz. des homer. Dialekts, 3rd edit. § 163 note). Seeing that in our days scholars have not always been able to draw the boundary between what is Indo-Germanic and what is Homeric, it should cause us less astonishment that in Thiersch's time there was a tendency to conjecture the existence in the text of Homer of what was recognised to be old and according to rule. The passages in Homer put forward by Thiersch in support of his view —κ 403 *ἐρύσσατε ἠπειρόνδε*, 404 *πελάσσατε ὅπλα τε πάντα*, ω 215 *ἱερεύσατε ὅστις ἄριστος*—prove nothing. There is nothing unheard of in the hiatus after the bucolic caesura. Besides we have in all three instances to deal with imperatives, and here the analogy of the Lat. *te* would not lead us to expect a final ς. Among the instances given by Hoffmann in his Quaestiones Homericae, i. p. 92, of an hiatus non excusatus, there is not a single imperative of the kind. The usual forms in τε, both in indicatives and conjunctives, of the principal tenses, are established even in Homer by passages like B 485 *πάρεστέ τε ἴστε τε πάντα*, N 120 *τάχα δή τι κακὸν ποιήσετε μεῖζον*, Θ 18 *ἵνα εἴδετε πάντες*. As now we find not a trace of this primitive form in any other Greek dialect, we cannot with certainty do more than set down the form *tes* as belonging to a pre-Greek age. For this period, however, we are obliged to assume its existence, as otherwise we cannot find a common origin for the Gk. τε and the Lat. *tis* with its by-form *te*.

Third Person Plural.

The first question that meets us under this head is whether we are to regard *an-ti* or *n-ti* as the full primary termination. At one time I followed Bopp (Vergl. Gr.[2] ii. 299) in choosing the latter, comparing the plural *nti* with the singular *ti* and regarding the introduction of the nasal as the mark of the plural. A more careful consideration, however, renders this symbolical explanation untenable here as elsewhere. While I still hold that nasalisation, like vowel-intensification, and reduplication 68
are used to give a syllable prominence, I am also of opinion that many phenomena once explained by me in this way ought to be regarded from other points of view. In *πίμπλημι*, *παμφαίνω*, e.g., weight is undoubtedly added to the reduplication by this accretion of a nasal to the syllable. But from the nature of the case it is the syllable that contains the nasal that gains the additional emphasis. Even granting then the plural form *φα-ν-τί* to have been made from the singular *φᾱ-τι* by nasalisation, it would not be the termination but the rt. *φα* that would gain emphasis, an emphasis precisely the same as that which gives to the actual root *φαν* in comparison with *φα* its intensified meaning. A *φαντί* that had arisen in this way might be expected to have an intensified meaning but never that of a plural. The introduction of an *a* too before the *nti*, shown e.g. by the comparison of a Skt. *j-ánti* with *ἴ-αντι*, *ἴᾱσι* to be of very early date, would be hard to explain on this hypothesis. If,

on the other hand, we follow Schleicher and others in taking *anti* for the primary form, the only difficulty we meet is in the case of the verbs whose stem ends in *a*. Why, it has been asked, do we not from *bhara*+*anti* get *bharānti* and a Gk. **φέρωντι*? But the entire expulsion of one of two vowels which come into collision is a weakening that it is not hard to explain. Sanskrit moreover gives a hint of this weakening when in this person it expels even the *n* in monosyllabic reduplicating *a*-stems, such as *dada*, and gives us *dádа-ti* instead of *dada-nti*, or, we may say, *dadā-nti*. If then we set down *anti* as the real termination, we shall find an easy explanation of it if we—again following Schleicher—resolve it into the pronominal stem *an*, to be seen in the Gk. *ἐνί*, *ἐν* and in the expanded form *ana* in many languages—in Gk. e.g. in *ἀνά*, *ἄνω*—and the *ti* (from *ta*) of the 3rd pers. singular. The two—that one, he, or something like it—are to be imagined as joined copulatively with the meaning 'that one and he' or 'he and he.' There can be no expression of the plural more simple than this.[8]

69 ## 1) The primary *αντι*, *ντι*.

The various forms assumed by the termination *anti*, *nti* in Greek may be reviewed in the following order.

a) The full unaltered termination has been preserved within the widest range by the Dorians. Here the difference, elsewhere so strongly marked, between the various ramifications does not exist. Ahrens (p. 292) is loud in the praises of the 'summa constantia' of the Dorians as shown in the antiquity of this very form. References to inscriptions of the different periods and places are given by Ahrens, who arranges those of all kinds of forms together e.g. *ἄγοντι*—*ἀναγγελίοντι*—*ἀνατεθέκαντι*—*ποιῶντι*, *διαγνῶντι*—*ἐγϝηληθίωντι* (=*ἐξειληθῶσι*). At the same place are to be found the corresponding forms from Epicharmus and Sophron. To these others have been added from inscriptions since discovered: from Delphian inscr. (Ber. d. sächs. Ges., 1864, p. 223) *ἀνατίθεντι*, *ἔχοντι*, *ἄγοντι*, *φυλάσσοντι*, *κρίνωντι*, *ζώωντι*, *θέλωντι*, *ἀντιλέγωντι*, *πάθωντι*, *τελευτάσωντι*, *ποιήσωντι*, *ἐξέλθωντι*; from Locrian inscriptions *ἔωντι*, *ἀνδιχάζωντι*, *φυλάσσοντι* (Allen Studien, iii. 263); from the Elic decree in honour of 'Damokrater' (l. 28) *μετέχοντι*. In Pindar the Doric form of the 3rd plur. is, acc. to Boeckh in his edition 1, 2, p. 358, and Peter, de dial. Pind. p. 56, far commoner than the Aeolic. In Callimachus (Lav. Pall. 115, 120) we get *δειπνησεῦντι*, *μενεῦντι*; in Theocritus forms like *μοχθίζοντι* (i. 38), *ᾠδήκαντι* (i. 43), *ἑστάκαντι*, *ἐνδινεῦντι* (xv. 82).

b) The form which comes nearest to the Doric is the Boeotian. Ahrens indeed (Aeol. 208) founds on the form *ἐντί*, which Aristophanes

[8] There are two new views of the 3rd plur. which I am unwilling to pass by unnoticed. Bréal (*Mémoires de la société de linguist.* ii. p. 193) regards the nasal which distinguishes the 3rd plur. from the 3rd sing. as a 'particularité de prononciation sans valeur significative,' which only gradually came to be confined to the plural. Until undoubted singulars are produced with such nasals, this remains a conjecture without any basis of fact. Quite different points of view are presented by Brugman's enquiry (*Stud.* ix. p. 293 ff.), where he suggests that the *a*, where it is peculiar to this personal termination, may have developed itself out of a so-called '*n sonans*.' The question, however, still needs a comprehensive and careful examination.

puts into the mouth of his Boeotian at Ach. 902, and on a passage of Heraclides in Eustath. 1557, 41, where *οἴκεντι* and *φίλεντι* are quoted as Aeolisms, the conjecture that this dialect in the earliest times did not differ from the Doric in the formation of the 3rd plural. As we have other instances preserved of very early coincidences between Boeotian and Dorian, this is not improbable. On inscriptions, however, the *τ* has been 70
changed to *θ*: C. I. 1568, 6 *ἔχωνθι*, 1569 a, 35. *ἀποδεδόανθι*, ib. 46 *ἰωνθι*. (Cp. Beermann, de dialecto Boeotico, Stud. ix. 62.) This change of sound occurs elsewhere after a nasal, e.g. in the middle form *συνεβάλονθο* in a Boeotian inscr. in Rangabé Antiqu. Hell. Nr. 898 (cp. Principles II., 111), and therefore cannot be regarded as a link between *τ* and *σ*, for the change of *τ* to *σ*, which is far more frequent, is due to an influence exerted by the *ι*.

c) On the other hand, there has been discovered in the Arcadian dialect of Tegea a remarkable link in the chain between the original *ντι* and the *σι* with preceding lengthening, found commonly in the Lesbio-Aeolic and Ionic dialects. On the inscription edited by Ad. Michaelis we read (Jahn's Jahrb. 1861, p. 585) *κρίνωνσι*, *κελεύωνσι*, *παρετάξωνσι* (l. 5, 15, 27). The forms are important, not only because they afford striking confirmation of a formation which was before only conjectured, but also because they show that it was not only among the Lesbian Aeolians, who might be supposed to have been influenced by the Ionians, that *τ* became *σ* before *ι*.

d) Connected immediately with the preceding comes the Lesbian *σι* with an *ι* before it as compensation for the loss of the *ν*. Forms like *φαῖσι*, *χόλαισι* (=*χαλῶσι*), *δίψαισι*, *ἐπιρρόμβεισι*, *πεπάγαισιν*, *οἰκήσοισι*, *κρύπτοισι* (Ahrens, 72, 129, 139), had long been known from the testimony of the grammarians and the fragments of the Lesbian poets. But as *ἐμμενέοισι* was the only form attested by an inscription, and no 3rd pl. conj. of this dialect was yet known, it is worth special notice that on the Lesbian inscriptions edited by Conze we read *ἀπαγγέλλοισι* (xii. a, 33), and *γράφωισι* (vi. 11). Pindar uses the forms in *-οισι* especially where he wants the help of a paragogic *ν*, which is never added to *ντι*. Theocritus has *φορέοισ'* in his Aeolic poem xxviii. 11.

e) The Ionians show the least constancy of all. With them the *ν* that falls out before the *-σι* has the most various ways of disappearing. After *α* it leaves a simple lengthening behind it: *φᾶσί*, after *ο* a dulling of the lengthened vowel to *ου*; *φέρουσι*. No one can doubt that the steps next preceding these were *φα-νσι* and *φερο-νσι*. We see the same change of sound in *μέλᾱ-ς* for *μελαν-ς* *γερουσία* for *γεροντ-ια*, *γερονσ-ια*. The 71
only forms that are problematical are those of the conjugation in *-μι*. That *ἴ-ᾶσι* was formed from *ἴ-αντι*, *ἔ-ᾶσι* from *ἐσ-αντι*, with an *α* that belonged to a primitive age, is put beyond doubt by the Skt. *j-ánti*, *(a)s-ánti*=the Lat. *(e)s-unt*, and the Germ. *s-ind*. According to the ordinary view, however, Attic forms like *διδό-ασι*, *τιθέ-ασι*, *δεικνύ-ασι* are taken as the foundations for *διδοῦσι*, *τιθεῖσι*, *δεικνῦσι*, which are supposed to have arisen from them by contraction. But this involves some difficulty. In the first place Homer only knows the trisyllabic forms: *τιθεῖσιν* Π 262, *β* 125, *ἰεῖσιν* Γ 152, Λ 270, *διδοῦσιν* Β 255, Υ 265, *θ* 167, *ῥηγνῦσι* Ρ 751, and these same forms are pronounced by Bredow, p. 393, to be Herodotean, on the authority of the best though by no means consistent manuscripts. Anyhow the forms in *-ασι* are not of very early occurrence. In

the second place, the contraction of *εα* to *ει*, *οα* to *ου*, *να* to *ν̄*, is anything but regular. The apparently similar instances of contractions into *ῑ* and *ῡ* in the acc. plur. are to be explained partly as due to the analogy of the nom. pl., and partly in quite a different way (*ἰχθῦ-ς* from *ἰχθυ-νς*). Buttmann was awake to these difficulties (Ausf. Gr. i.[2] 505). The assumption that the *α* in *διδόασι* is an insertion, which Matthiae, i.[3] 483, thought a possible one, did not satisfy him. He was inclined himself to follow Landvoigt in regarding *-σαντι* as the termination in these forms. On this supposition he was right in comparing them with *ἴασι* and *εἴξασι*, as also with the preterites *ἔ-δο-σαν*, *ἐ-δίδο-σαν*, and we should in this case have to suppose *διδο-σαντι* to be a compound with *-σαντι=ἐσ-αντι=sunt*. But there is this considerable difference between the preterites and the forms in question: in the former the *σ* remains, but in the latter it does not. If *διδό-ασι* and *ἐ-δίδο-σαν* were formed on the same principle, why have we not on the one hand **διδό-σασι*, or on the other **ἐ-δίδο-αν*? The parallelism between the past and present tenses is such that it is hardly conceivable that where once there was unanimity so striking a difference should have arisen. A closer examination of all these relations will lead us after all to agree with Bopp when (Vergl. Gr. ii.[2] 299) he makes use of the remarkable identity of Skt. forms like *Ki-nv-anti* they collect, and *δεικ-νύ-ᾱσι*, in order to give 'a satisfactory account' of the *α*. The forms *τιθέ-αντι*, *διδό-αντι* which may be deduced from *τιθέ-ασι*, *διδό-ασι* (cp. the Homeric *βιβά-ασι*, *γεγά-ασι*) must be re-
72 ferred to a very old tradition. We here have formations of an older type than the Doric *τιθέ-ντι*, *δίδο-ντι* and the corresponding Sanskrit *dá-dha-ti*, *dá-da-ti*, which have even lost their nasal. It is doubtful, on the other hand, whether the Homeric forms really arose from the Attic ones. To take the simplest case first, who could suppose *εἰσί* contracted from *ἔασι* when the well-attested Doric *ἐντί* (Ahrens, 320) supplies us with so much simpler an explanation of it?[9] It is true that *τιθεῖσι*, *διδοῦσι*, *ῥηγνῦσι* were regarded by the old grammarians as contracted forms, as their accent shows. For this we have the testimony of Herodian (i. 459). But who knows whether this doctrine had not its root in the mistaken policy of taking Attic forms as the primary ones? If we assume the real accentuation to have been *τίθεισι*, *δίδουσι*, *ῥήγνυσι*, they would bear to the Doric *τίθεντι*, *δίδοντι*, the same relation as that of *εἰσί* to *ἐντί*. *ἰστᾶσι* (N. 336) may well have been formed on the analogy of *ἴασι*, *ἔασι*, and so be a contraction, unless we prefer to class it with the related verbs and to accent it *ἵστᾱσι* (cp. Skt. *tishthanti*, Zd. *histeñti*).

f) There remains to be discussed an extraordinary Cretic form. Hesychius has the gloss *ἔχονι· ἔχουσι Κρῆτες*. It would be easy to conjecture (as Ahrens does, Dor. 293) that he meant *ἔχοντι* or *ἔχονσι* as a dat. plur. But it is just as possible that this tradition is a sound one, as Boeckh, C. I. ii. 404, Stier, Ztschr., vii. 7, suppose. *ἔχονι* may have come immediately from **ἐχοννι* (cp. *ξέννος*). The **ἔχοννι* thus arrived at may perhaps be taken as derived by assimilation from the ordinary

[9] Cp. G. Stier, *Ztschr.* vii. 1 ff. In this essay, which takes in much matter related to our present subject, the form *εὖτι=εἰσί* too is, according to an old precedent, again adduced as Aeolic. This form, though, is only found in Eustath. 1557, 41, quoted from Heraclides, where, however, the whole connexion clearly points to the conjecture made by Ahrens (*Aeol.* 209), that *εὖτι* is a mistake for *εὖντι*, a Doric contraction for *ἔοντι*.

Doric ἔχοντι. The Cretans were fond of unusual assimilations. Cp. e.g. their transformation of ἔκλυσιν to ἔλλυσιν, Λύκτος to Λύττος (Hey, De Dial. Cretica, p. 48). We shall meet with this assimilation of *ντ* to *νν* directly in the final letters of the secondary forms.

2) The secondary termination *-ant, -nt.* 73

The Dorians accented every 3rd plur. of the secondary forms as a paroxytone : ἐλέγον, ἐφάγον, ἐφάσαν, ἐλύσαν. Ahrens (Dor. 28) has collected the testimony of the grammarians on this head. No one, I think, will believe nowadays that this accentuation is, as Macrobius (De Differ. p. 310) assumes, 'discretionis gratia,' i.e. meant to distinguish the 3rd pl. from the 1st sing. There was no 'discretio' at all in the case of ἐφάσαν, ἐλύσαν. Ahrens saw clearly that the reason lay in the origin of these forms. At the time when *nt* was still sounded at the end of these syllables the final syllable was long by position, and this affected the accent. The main accent, which had a greater persistency than the final consonant, held fast to the syllable on which it had once established itself. The only question is whether it was the old full *nt* which was preserved in the Lat. *erant* (=ἦσαν) that produced this effect, or a connecting link between *nt* and the simple *ν*. The former is the view held by Ahrens, and formerly by myself. Misteli, on the other hand (Ztschr. xvii. 166), has endeavoured to show that the latter is the probable one. He is no doubt right in assuming that between the deducible ἦσαντ and the ordinary Greek ἦσαν there must have come a form in which *ντ* had assimilated itself to *νν*, ἦσανν that is, and aptly compares with it the Skt. form *ásann* which still appears before vowels. For the formation of the nom. and acc. neut. of *ντ*-stems in *-ν* also I believe that I have in Stud. ii. 167 been right in conjecturing forms in *νν*, e. g. φέρονν. Since then there can hardly be a doubt that the step immediately preceding ἐλέγον, ἐφάσαν was not ἐλέγοντ, ἐφάσαντ, but ἐλέγονν, ἐφάσανν, it seems advisable to find an explanation for the Doric accentuation in this the nearest step, especially as the Greek law as to the final syllable was not one of the oldest laws of accentuation and e.g. can certainly not be held to apply to the Graeco-Italic period in which we are forced to admit *esant* and the like. There is even nothing improbable in the further assumption that the Doric *ν* in this place, e.g. in ἐλέγον—as a kind of fellow to the initial *ν* arising from *ον*, and making the *ο* long by position, in the Homeric ἀπὸ νευρῆφιν—had even in historical times a somewhat different sound from that of the *ν* in the 1st sing. ἔφερον, and that this was the reason why the analogy of all 74
verbal accentuation so imperious elsewhere was powerless here. When in the next place the final consonant was completely expelled, Greek reached the same stage as the Sanskrit : ἔ-φερο-ν=*á-bhara-n* and Zd. *bare-n.*

A companion to the forms in *-ασι* after vowels above discussed is the Boeotian ἀνέθιαν, C. I. 1588, i.e. ἀν-έ-θε-αν (Ahrens, Aeol. 211, Dor. 525). Ahrens is no doubt right in refusing to assume with Boeckh that an *σ* had been expelled here, for ἐνίκωσαν (1583) shows that the *σ* of similar forms remained intact. It is far better to suppose that here, as in the perfect ἀποδεδό-ανθι (1569a, 35), and the Attic διδό-ασι, τιθέ-ασι the *α* is

an integral part of the personal termination.[1] This agreement between Attic and Boeotian is perhaps not accidental: it may be one of a series of phenomena common to the two neighbouring countries.

We have already had occasion to speak of the partial or sporadic part played by composition in this person (p. 48). Few can doubt that ἔ-φα-σαν, ἔ-δο-σαν contain the preterite of the rt. *as* shortened to σαν and destitute of augment (=ἔσαν), and the view of the ancients that the shorter formation arose from the longer may be regarded as disposed of. The direct addition of the personal termination to the stem in the case of verbs with no thematic vowel is from the earliest periods of the language onwards rarer than that of the longer -σαν. In Homer we have—

ἔσταν Α 535 by the side of ἵστασαν Σ 346
στάν Ι 193 „ „ παρέστασαν Η 467
ἔβαν Α 391 „ „ ὑπέρβασαν only Μ 469
βάν Δ 209 „ „ ἔβησαν Θ 343
ἔφαν Γ 161 „ „ ἔφασαν Ο 700
φάν β 337 „ „ φάσαν Β 278
φθάν only Λ 51
ἔτλαν only Φ 608
ἔκταν only Κ 526
πρότιθεν α 112 (Aristarchus) by the side of τίθεσαν χ 449
θέσαν Α 433
75 ἶεν Μ 33, μέθιεν φ 377 by the side of ἄνεσαν Φ 537
πρόεσαν δ 681
[hymn. in Cerer. 328, 437 ἔδιδον]
δόσαν Α 162
ἔδυν Λ 263 by the side of ἧσαν Κ 197
ἔφυν ε 481 „ „ ἦσαν Α 494

Hesiod uses ἔδιδον Opp. 139 (M.SS. ἐδίδων, cp. Rzach, Dialekt des Hesiodos, Theogn. p. 439), ἔδον, Theog. 30, by the side of ἔδοσαν 141, and the remarkable ἦν=ἦσαν, to be discussed below, p. 99. The short form finds a fair number of representatives in Doric dialects; we have the Argive ἀνέθεν (C. I. 29), now found also on the Olympian nike-inscription of the Messenians and Naupactians, ἀπέσταν, διέγνον (Heracl. Tables, Meister Stud. iv. 420), to which may be added ἔδον from the inscription from Tegea, C. I. 30. From hence they made their way into Pindar's poetry: κατέσταν Pyth. i. 35, πίτναν Nem. v. 11, ἀνέθεν Isthm. viii. 58 (cp. Simonides Ceus, 137), τίθεν Pyth. iii. 65, ἶεν Isthm. i. 22, ἔφυν, Pyth. i. 42, by the side of θέσαν Pyth. ii. 39, ἔδοσαν Nem. vi. 10, and indirectly, though very scantily, into that of the dramatists: ἔβαν Aesch. Pers. 18, ἀπέδραν Soph. Aj. 167, κατέβαν Soph. Trach. 504, ἔσταν Eurip. Phoen. 1246. The corresponding forms of the passive aorists are discussed ii. 323. The termination σαν, which clearly took the place of ν more and more as time went on, has perhaps no counterpart outside Greek except in Old Persian: e.g. *pati-y-āi-sa*=προς-ήι-σαν (Spiegel, Altpersische Keilinschriften, p. 168).

DUAL.

The first person dual, which originally ended in *-va-si*, as is shown by the Skt. *va-s*, the Zd. *va-hi*, the Ch.-Sl. *vě*, the Lith. *-va*, and which, it is highly probable, differed from the 1st plur. only by the

[1] Beermann, de dial. Boeotica (Stud. ix. p. 78), takes another view of this form, which he connects with the Arcadian ἀπυ-δόας discussed Verb. ii. 288.

weakening of the *m* to *v* (Schleich. Comp.[3] 653), has disappeared from Greek without leaving a trace. We may perhaps conjecture that the disinclination this language showed to a digamma, especially in the middle of a word, had something to do with this, especially as of the two dialects which did hold to the *ϝ*, the Aeolic had no dual.

There are so many questions that touch both persons of the dual equally, 76
that we shall have to consider the second and third persons together.

The termination of the 2nd pers. in the Indo-Germanic period appears to have been *-tva-s*, the nearest approach to which is the Skt. *-tha-s*. It would hardly be possible to establish any other analysis of this than that into *-tva-si*, i.e. 'thou thou,' so that, as already pointed out on p. 44, the second person dual was originally identical with the second person plural. Notwithstanding this it is quite clear that there was a difference between the two numbers in this person before the separation of the Indo-Germanic languages, for the difference is visible not only in Sanskrit and Greek but Lithuanian (2nd du. *-ta*, 2nd pl. *-te*) and Gothic (2nd du. *-ts*, 2nd pl. *-th*) as well. Now this primary termination has, it is true, disappeared from Greek. But there is a corresponding secondary form, the Skt. *tam*, with which the Gk τον is identical. How this *tam* is connected with the assumed primary form **tva-s* is not clearly ascertained. If we take the Greek language as our point of view we are inclined to state the relation thus: μεν : μες :: τον : **tva-s*. It is true that in the 1st plur. the nasal is exclusively Greek, while in the 2nd and 3rd dual it is Indian as well. In the former case it can be explained by the phonetic tendencies of Greek, in the latter it is a mere meaningless phonetic addition that admits of no explanation. We cannot rest content either with Schleicher's conjecture (Comp.[3] 660) that we ought perhaps to divide it *t-am*, and regard the *am* as an accession 'with no clearly distinguishable function.' I am afraid that we must here and in some other cases leave this *m* for the present as an *x* to be explained in the future.

In the 3rd person dual Sanskrit has the primary termination *-tas*, Zend *-tô*, in which the *ô* is the regular and purely phonetic transformation of *as*. It is clear that *-tas* : *-thas* :: pron. stem *ta* : *tva* (*tha*), that is, *tas* originated in *ta-si* 'he he,' as did *thas* in *tva-si*. The syllable *si* then, which is in most cases the mark of the second person, here belongs to the third, being weakened from *sa*, 'he.' Bopp's conjecture that the *s* is the remnant of a pronoun *sma*, which must evidently have arisen from *sa*+*ma*, seems to me less likely (Vgl. Gr. ii.[2] 280), though on this assumption, which would have to be extended to the 2nd dual as well, it might 77
be possible to find an explanation for the enigmatic *m* of the secondary terminations. It might be that out of this *sma* the primary **tvas*, *ta-s* kept the *s* and the secondary *tam* the *m*. No specific mark of duality has been retained in either of the two persons. Possibly it was a gradually formed usage which restricted them to this narrower sphere, though at the first they denoted indefinite plurality. The Gk. termination *-τον* is evidently related to this *-tas* precisely as the same termination in the 2nd dual is to *-thas*.

By the side of this primary form stands a secondary. Here Indian and Greek show a remarkable accord, the former having *-tām*, the latter *-την*. The length of the vowel as compared with the short vowel of the primary form is striking. Misteli in his essay on the terminations of the middle (Ztschr. xv. 329), believes the ground of the lengthening is

to be found in the effort to distinguish it from the 2nd dual. But this effort cannot anyhow have been very strong in Greek, or the primary forms for the two persons would not have remained the same. I am more inclined to think that it was a kind of accident which preserved the long secondary vowel, and that the primary vowel was long too at first, that consequently there stood originally *tās tām* side by side, and that this *ā* was of the same nature as that in the *-thā* of the 2nd sing. We have occasionally to assume terminations with long vowels for imperative and middle forms as well. The agreement between Greek and Sanskrit in this point is the more remarkable because Zend here shows the short vowel (Schleicher, Comp.[3] 670) : here the termination is *-tem*, e.g. in *ǵaçaê-tem*=βασκοί-την. The Ch.-Sl. *te*, both primary and secondary, does not help us much : Gothic and Lithuanian give us no help at all.

While the schema given by Greek grammarians—

2 du.	τον	τον
3 du.	τον	την

derives powerful support from these considerations, Comparative Grammar has here much to say on the points of controversy which have occupied the students of Greek Grammar in particular. In discussing the strange
78 irregularities which meet us here we may take the middle forms into consideration at the same time, although we shall have to discuss their origin later on. Anyhow the parallel between τον την and σθον σθην is visible at once. The strange thing is that the rules of the schema given us by tradition are so very seldom observed in practice. No doubt this is partly because the dual forms do not occur very often anywhere, and only in Attic with any frequency. It is therefore worth special notice that the regular form in *-την* for the 3rd dual does sometimes occur in Attic inscriptions (Corp. Inscr. Att. No. 358 *ἀνεθέτην*, 396, 374, and elsewhere *ἐποιησάτην*), and that we have in a Boeotian (C. I. No. 1580) and in a Dorian inscription (No. 25) a 3rd dual in *-ταν* : *ἀνεθέταν*, *ἐποησάταν* (Ahr. Dor. 298).

To the grammatical rule there are exceptions of two kinds, which have been discussed with most minuteness by Aug. Bieber, De Duali Numero (Jena, 1864), p. 20, who follows in the steps of earlier authorities to whom we shall have occasionally to refer.

1) In Homer *-τον* takes the place of *-την* as the termination of the 3rd dual in secondary forms. Of this we have three certain instances, recognised as such by the old grammarians :

> K 363. *ὣς τὸν Τυδείδης ἠδ' ὁ πτολίπορθος Ὀδυσσεὺς*
> *λαοῦ ἀποτμήξαντε διώκετον ἐμμενὲς ἀεί.*

Aristarchus's attempt to get out of the difficulty here by assuming an enallage temporum has been thoroughly refuted by Friedländer, Philol. vi. 669 ff. No refutation is needed of the view of other grammarians that there is an enallage personarum.

> N 345. *τὼ δ' ἀμφὶς φρονέοντε δύω Κρόνου υἷε κραταιὼ*
> *ἀνδράσιν ἡρώεσσιν ἐτεύχετον ἄλγεα λυγρά,*

where there is the entirely unsuitable variant τετεύχατον.

> Σ 582. in a narrative—
> *τὼ μὲν ἐναρρήξαντε βοὸς μεγάλοιο βοείην*
> *ἔγκατα καὶ μέλαν αἷμα λαφύσσετον.*

A passage in Hesiod, Opp. 199, which used to be classed with these, is too uncertain to prove anything, for it is by no means certain that ἴτον, which is itself doubtful,[2] is to be taken as a past tense. I. Bekker, in 79
his review of Wolf's Homer (Hom. Bl. i. 50), wanted to bring the three Homeric forms into accordance with the rule, and proposed to read διώκτην, ἐτύκτην, λαφύκτην, but since then he has shown a wise caution in not venturing to introduce these creations of his own into the text. In the case of *λαφύκτην particularly this would have been open to objection, as it would have been contrary to all analogy, and has no longer the support even of *συναΐκτην. For in Hesiod, Scut. 189, it is no doubt right with the E. M. to read συναίγδην, which Köchly and Kinkel have adopted. One or two third persons dual in the middle in -σθον for -σθην are mentioned as variants in our scholia on N 613, Π 218, Ψ 506. It is clear from this that the Alexandrians, and especially Aristophanes and Aristarchus, had to fight for their schema, which has since been held the regular one. We need not be surprised at this when we find that there were actually those who held that in Homer the dual might be used for the plural at will, a view which, although not without its supporters even nowadays, may be regarded as disposed of by anyone who will reflect on it (Bieber, De Duali Numero, pp. 39–46). The leaders among the Alexandrians no doubt drew from the superabundance of the forms in -την, -σθην for the 3rd pers. of the secondary forms the correct conclusion that such was the prevailing rule, and Comparative Grammar in this instance endorses their verdict. No one I think will now accept Buttmann's decision that 'the distinction between the dual endings ον and ην was not matured till the time of the later poets' (Ausf. Gr. i.[2] 341 note).

But the question is how to regard these remarkable exceptions. Thiersch (p. 352 note) thought there might have been a shortening of -ετην to -ετεν for the sake of the metre. In support of this might now be adduced the Zend forms in *-tem*. Still more artificial and arbitrary is Bollensen's attempt (Ztschr. xiii. 202). We have every reason to be very careful how we alter the text of Homer to suit grammatical rules 80
and theories. When we set against this the fact that the three verses occur in parts of the Iliad which are certainly not among the oldest—the Doloneia, the Shield of Achilles, and in a passage which Bekker finds ground for regarding as an interpolation—we shall be inclined I think to attribute the anomaly to the want of proper linguistic instinct on the part of some late rhapsodist. There are next to no forms in -τον for -την in Attic writers: Plato, Euthyd. 274, ἔφατον, Thucyd. ii. 86, where Classen, though he follows others in reading the unobjectionable διέχετον, still has a word to say for the διείχετον of the M.SS. In Aristoph. fr. 523 Dind. it is impossible to make the words of the grammarian who cites these verses in the Et. M. a sufficient ground for pronouncing καταντιβολεῖτον and ἐκμαίνετον unaugmented past tenses. They are clearly historical presents. Such a state of the facts is surely enough to warrant the alteration of Plato's ἔφατον into ἐφάτην.

[2] Compare *Hesiodea* edd. Koechly et Kinkel, who have adopted ἴτην, and Rzach, *Der Dialekt des Hesiodos* (Jahrbücher f. class. Philologie, Suppl. b. viii. p. 438).

2) More attention has been paid to the anomaly which is the reverse of this, the substitution of *-την* (*-σθην*) for *-τον* (*-σθον*) in the *second* person dual of the secondary forms. Since Elmsley's note on Aristoph. Acharn. 733, and Eurip. Medea, 1041, a small literature has amassed itself on this subject, out of which I will only mention Buttmann, Ausf. Gr. i.[2] 341; Cobet, Mnemos. viii. 408, Κόντος Λόγιος Ἑρμῆς, i. 29 ff., and Fritsche's most sensible discussion on Aristoph. Thesm. v. 1158. Elmsley went so far as to reject altogether the second pers. in *-τον* in historical tenses even in Homer, and therefore not only preferred at Θ 448, Κ 545, Λ 782, Zenodotus's καμέτην, λαβέτην, ἠθελέτην to Aristarchus's κάμετον, &c., but at Θ 456 altered the metrically established ἵκεσθον in the most arbitrary fashion, and in direct violation of the syntax, into the conjunctive ἵκησθον. This conjecture therefore of Elmsley's has met with no approbation. With respect to the Attic writers the case is different. Here the sagacity of the English critic and his followers has established that in at least six passages in Plato, including one in the Eryxias—Euthyd. p. 273E εὑρέτην, ἐπεδημησάτην, ib. 294E ἤστην, Legg. vi. 735A ἐκοινωνησάτην, Symp. 189C εἰπέτην, Eryx. p. 199d ἐπετελεσάτην, in the scholium on Harmodius and Aristogiton in
81 Athen. xv. 695, Soph. O. R. 1511 εἰχέτην, which is established by the metre, Eurip. Alc. 661 Dind. ἠλλαξάτην—in nine passages that is in all, to which may perhaps be added Aristoph. Nubb. 1506, *-την* for *-τον* in the second person is fully established. But over against these nine or ten passages stand at least thirteen in which the M.SS. have *-τον* for the second person in secondary forms: Aesch. Ag. 1207 ἤλθετον, Soph. O. C. 1379 ἔφυτον, 1696 ἔβητον, 1746 ἐλάχετον, Eurip. El. 1300 ἠρκέσατον, Med. 1073 εὐδαιμονοῖτον, Alc. 272 ὁρῷτον, Aristoph. Vesp. 867 ξυνέβητον, Av. 112 Thesmoph. 1155 ἤλθετον, Plut. 103 ἐμέλλετον, Plato Euthyd. 273E ff. εἴητον, ἐλέγετον, ἔφατον (a little above comes εὑρέτην), Legg. i. 646B, ἔφατον. In none of these cases is there the smallest ground for any alteration, and yet Dindorf (for the past tenses at any rate), Nauck, 'Mém. de l'Acad. de St. Pétersb. T. V' (1862) p. 56 f., Cobet, Mnemos. viii. 408, and even G. Hermann (on Aesch. Ag. 1207) have followed Elmsley in pronouncing that this majority—all well-attested passages—is to be corrected to suit the minority. But the mere fact that the exchange of *-την* for *-τον* in the passages from the poets is *possible*, and would not spoil the metre, is hardly enough to turn the scale. Unfortunately we are left in the lurch here by the most trustworthy witnesses to living usage, i.e. the inscriptions, and there is reason to fear we shall remain so, as there is not much hope of finding the second person dual on them. But there is nothing to justify us in regarding the doctrine of the old Grammarians on a clearly important point as a pure invention. What but usage could have furnished Aristophanes and Aristarchus with grounds for so remarkable a rule? How did the clearly established Homeric ἵκεσθον get into the above-quoted passage? And what explanation are we to give of the complete accord between this rule, which they would have us believe invented by the Alexandrians on the spur of the moment, with the positively established Indian usage[3]—

[3] Copious instances from the Rigveda may be seen in Delbrück's *Altindisches Verbum*, pp. 41, 61.

Skt. 2nd Dual sec. *tam*, Gk. τον
3rd „ „ *tām*, „ την

if we are not to suppose that these forms are of primitive antiquity? This is not the only case in which the wider range of view of the modern Science of Language has confirmed the doctrines of the Alexandrians, 82
and refuted the judgments, formed with the greatest confidence from insufficient subject-matter and with no regard to the structure of language by even the most meritorious of modern critics, nor is it the only instance in which Comparative Grammar has shown itself not barren of results even in the region of textual criticism.[4]

I am thoroughly convinced myself, and I would hope my readers are too, that (cp. Kühner, Ausf. Gr. i. 542 f.) in two different periods the Greeks were inconsistent in their usage of dual forms in verbs, that at an earlier period the termination τον had the upper hand, while in that of Attic Greek the distinction of the secondary from the primary forms which had become the established rule for the 3rd pers. dual had the effect of introducing a mistaken observance of the same distinction now and then in the second person as well. The dual was anyhow of proportionally rare occurrence, and this fact helps us to understand the existence of such aberrations of the linguistic instinct, as also of the similar confusions of gender in the case of dual forms in nouns.

II. MIDDLE.

The personal terminations which to a large extent do duty for middle and passive alike belong originally to the former, and originated in an expansion of the terminations of the active. These two facts are all but universally acknowledged. As to the individual terminations, however, and their relation to the corresponding active terminations, such a complete agreement does not yet exist. In fact, there arise here on some points difficult problems for which satisfactory solutions have yet to be found. Our first task is to find in general the true principle of the relation between the active and middle terminations.

The function of the middle terminations is essentially a reflexive one, reflexive that is in the broadest sense of the term, and it by no means denotes simply the direct passing of the action back on to the subject. It was a natural and pertinent suggestion that as the subject bears a 83
twofold relation to the action of the middle, it might have found a twofold expression in its form. This idea formed the basis of Kuhn's and Bopp's analysis. The full terminations of the three persons of the singular are found to be *mai, sai, tai.* These were referred by the two scholars above named to *ma*+*mi, tva*+*tvi, ta*+*ti*, that is to I+I, thou +thou, he+he, the second of each pair being supposed to be equivalent either to an accusative or dative.

This view of Kuhn (De Conjug. in MI, p. 24) and Bopp (Vgl. Gr. ii.[2] 314 ff.) I opposed in my 'Tempora und Modi' (p. 30 ff.). But I have long since been convinced that my grounds of opposition to the principle in general were untenable. My first ground was this: if in the 2nd pers. plur. act. the primary form **tva-tva* attained, from the mean-

[4] This question has been sensibly discussed by A. v. Bamberg, *Ztschr. f Gymnasialwesen*, 1874, p. 622 f.

ing *thou and thou*, properly *thou thou*, to that of *ye*, how were we to believe that this same *thou thou* should in the 2nd sing. mid. become *thou thee*? Language could not, I thought, have associated the same pronominal stems in one case as copulative compounds—called in Sanskrit *Dvandva*—where an *and* had to be supplied in thought, and in another as compounds where one was dependent on the other—called in Indian grammar *Tatpurusha*. This difficulty, though justified at the time by the science as far as its light went, disappears at present in the face of the new light lately thrown on the subject by the introduction of clearer chronological notions, which have led me more and more to the conclusion that the forms of language arose stratum by stratum (cp. above, p. 7 ff.). It is quite possible that the same elements which in an earlier period were associated copulatively, were united in quite a different way at a later time after the sense of the origin of the former compounds had long been lost. We shall even find in the 3rd pers. imperative a further and a different mode of association, i.e. the emphatic or intensive. In my treatise 'Zur Chronologie der indogermanischen Sprachforschung' I have shown how this very process, this variety of methods of association of the same elements, is of repeated occurrence, and is specially adapted to give us an insight into the gradual growth of linguistic forms.

Other objections were derived from defects in the explanations of
84 individual formations, especially those of the plural, on which much fresh light has, as I think, been cast by Misteli's essay in Kuhn's Ztschr. xv. 285 ff. and 321 ff.

My own explanation of the middle terminations which I preferred to that of Kuhn and Bopp was that they had arisen from the active terminations by addition of sound or vowel intensification. I assumed *mai* to have arisen in this fashion from *mi*, *sai* from *si*, and so on. But it is not likely that at the time when the middle terminations arose the active terminations had degenerated from the old *ma*, *tva* &c. to *mi*, *si* &c., especially as we have still preserved in the form *-tha* (see above, p. 32) and in the 3rd sing. *tu* of the imperative, forms with different vowels. Moreover, if *mi* after being once so weakened did develope by intensification back to a stronger *mai*, it was contrary to the normal course of a sound's progress. There are besides one or two secondary forms, particularly the 1st sing. *μην* and the Skt. 2nd sing. *thās*, which cannot possibly be explained on this hypothesis. For these reasons I retract my former views on this head.

Besides Bopp's theory, which has its difficulties no doubt, and the one just mentioned as formerly held by myself, there is a third which has much in its favour. In the Italian languages, in Lithuanian, and in Norse the middle is formed by the addition of the reflexive pronoun. What if this should have been the case in Greek too, if *μαι* should have arisen not from *ma* + *mi* but from *ma* + *svi*, i.e. *ma* + *sva*? The possibility of this was noticed as such by Bopp (Vgl. Gr. ii.[2] 321), and I have often thought it over myself. On mature consideration, however, I have decided against the theory. Wilibald Roeder, in his 'Formenlehre der griechischen Sprache für Gymnasien,' Berlin, 1867, p. 68, has gone so far as to introduce this doctrine into the schoolroom. There is an attractiveness about it when looked at with reference to Greek alone. As far as Greek phonetic laws go there is nothing extraordinary in the loss of

the *sv* between *ma* and *i*. But where are we to find the like in Sanskrit? Yet here, too, we have *ē*, which must have come from *mē*, *mai*, *sē*, i.e. *sai*, *tē*, i.e. *tai* in the 3rd sing. The reduplication theory finds at all events support in one or two forms, especially in *-μην* and the Skt. *-thās*, which retain relics of the repeated pronoun. No such support can 85
be found for the reflexive theory. And apart from the fact that it assumes such an expulsion of sounds as could hardly have happened so early, it leaves the termination *-μην* altogether unexplained.

We shall be driven, therefore, to come back to the method of explanation suggested by Bopp, which has been adopted by Schleicher (Comp.[3] 671), and adhered to in its essential points by Kuhn in his discussion of the middle terminations (Ztschr. xv. 401 ff.), and shall have to try how far it will help us in dealing with the individual forms.

As to the bearing which the meaning has on this theory, it is important to remember the fact, already referred to, that in no language does the middle coincide in use with that of the active forms followed by a reflexive pronoun in the accusative. The use of λούομαι in the sense of λούω ἐμαυτόν is, as everyone knows, one of the rarest. The same is the case in Sanskrit, where the nature of this form is so well expressed by the word *ātmanēpada-m*, i.e. self-form. Now this fact is quite in accordance with the above-mentioned explanation. For the newly added pronoun has not the form of any case whatever, but that of the stem. As I have attempted to show in the essay mentioned above, the formation of the middle must be referred to a much earlier period than that of the formation of the cases (cp. Misteli, Ztschr. xv. 296). The notion of the accusative, of the dative &c. can hardly have been present to the consciousness of the Indo-Germans when they created the middle voice. Hence the relation of the newly added pronoun to the action was as undefined as that of most nouns in compounds of which they form a part, and in which the variation of meaning bears the stamp of an early period.

First Person Singular.

We may take the doubled *-ma* as the primary form. The only doubt is whether, as Kuhn conjectures in his acute discussion of all the forms of this group (Ztschr. xv. 401), we ought to start from *-mā-ma* or from the shorter *-ma-ma*. We have already encountered more than one instance of lengthened pronominal stems in the personal terminations of the active, e.g. on p. 36 in the discussion of the 2nd sing. in *-θα* and on p. 51 in the analysis of the 2nd dual in *-τηv*. Hence there is nothing extraordinary in the assumption of a *-mā-ma*, and we shall have to agree with Kuhn anyhow that the heavy Sanskrit conjunctives 86
in *-āi* ([*m*]*āi*, *-sāi*, *-tāi*, *-ntāi*) are best explained from primary forms in which the first of the two united pronominal stems occurs in a lengthened form. The same primary form *-mā-ma* clearly provides the best explanation for the Greek secondary form *-μην* too, as *tvā-tva* does for the Indian secondary form *-thās*. But I cannot fall in with Kuhn's other view that the *αι* in the Greek terminations *-μαι*, *-σαι*, *-ται*, *-νται* corresponds to this heavier *āi* and not, as was universally assumed before, to the *ē* which came from *ai*. The most conclusive objection to this view lies in the Arcadian third persons in *-τοι* to be discussed on p. 61—forms which Kuhn says nothing about—for *-οι* can never be the repre-

sentative of *āi*. A further objection lies in the fact that these middle terminations in *-αι* are liable from Homer onwards to frequent elision, and this does not look as if they were heavy sounds. It has been proved that the Greek diphthong *αι* does sometimes represent an original *āi*, but it is just as certain that—e.g. in *αἴθω* from the rt. *idh* (cp. Skt. *édhas* firewood), in *παραί*=Skt. *parē*—it sometimes takes the place of an *ai* (=Skt. *ē*), and for this reason I still hold to the old view, which Kuhn himself held formerly, that it is not in the fuller but in the shorter Sanskrit forms that we have a parallel to those of the Greek.

The first step on the way from **ma-ma* to the assumable *-ma-i*=Gk. *μαι* we must suppose to have been the weakening of the final *a* to *i*. This gives us the form **-ma-mi* by a weakening which is precisely analogous to that which occurred in the 1st sing. active. Expulsion of the second *m* turned **-ma-mi* into *-ma-i*, at first sight a striking mutilation of the termination, inasmuch as the doubling which had previously taken place is thus effaced. But I think I have shown in my treatise 'über die Tragweite der Lautgesetze' (Berichte der phil. hist. Cl. der k. sächs. Ges. d. Wissensch. 1870, p. 9 f.) how the very function of these personal terminations must have strengthened and furthered their tendency to efface and to lighten themselves. In this instance there is nothing but the *ι* to represent the second of the two pronouns, and in
87 the Skt. *ē* even the remaining *m* has gone too, a fact which throws light on the similar sound change assumed above.

The termination *-μαι* is common to the primary tenses of all dialects but the Boeotian, which here, as in other instances, had *η* for *αι*. Still we only know *τύπτομη* and the like from the quotations of the grammarians (Choeroboskos Bekk. Anecd. 1215, cp. Herodian ed. Lentz, ii. 352, Ahrens, Aeol. 187).

From the secondary **mā-m* came the Aeolic and Doric *-μᾱν*. As to the form used in Lesbian Aeolic we have the evidence of *ἠράμαν* (Sappho fr. 33), *ἀλλόμαν* (fr. 55), *ζαελεξάμαν* (fr. 87), the Doric we only know from the Cretan inscription C. I. 2255, 23, where there is *συνεθέμαν*, from numerous forms in Pindar (Peter de dial. Pind. p. 9), from the choruses in the tragedians (Ellendt, Lex. Sophocl. ii.[1] xix.), and from lyric passages in Aristophanes. Thiersch thought he had found a most peculiar Homeric by-form in *-μεν*. In his 'Gk. Grammar especially of the Homeric dialect,' § 168, 10, he says: 'Perhaps too we ought to write *κατεαξάμεν* instead of *κατεαξάμην* N 257, where there now stands *ἔγχος—κατεάξαμεν, ὃ πρὶν ἔχεσκον*.' This conjecture, which had sunk into merited oblivion, has been repeated by Alfr. Ludwig in his essay, 'der Infinitiv im Veda,' p. 144, though Thiersch is not mentioned, and two other passages are added in which we are offered a singular verb in place of a plural which at first sight seems out of place. A more careful consideration, however, reveals the fact that, as has been shown more in detail by Joh. Lissner in the Programme of the Eger Gymnasium for 1873, the interchange between singular and plural in the 1st person which was frequent in later writers, as the scholiasts on N 257 remarked, was by no means unheard of in Homer. Compare especially *ν* 358 and *Γ* 440. At *κ* 99, *καπνὸν δ' οἷον ὁρῶμεν ἀπὸ χθονὸς ἀΐσσοντα* may be easily explained on the assumption that while Odysseus (v. 95) was the only *captain* that separated his ship from those of the others, he was not alone either in the ship or when he climbed the hill to survey the country, and thus

at v. 100 he has comrades with him when he sends out after news. At
μ 198 αὐτὰρ ἐπειδὴ τάς γε παρήλασαν, οὐδ' ἔτ' ἔπειτα φθογγῆς Σειρήνων
ἠκούομεν οὐδέ τ' ἀοιδῆς it is true that, logically speaking, Odysseus was so
far the only one who could have heard, but by a very natural rapidity of
thought the state to which the ἑταῖροι returned after they ἀπὸ κηρὸν ἔλοντο 88
is anticipated. Hence no one will hold the existence of a 1st sing. mid.
in -μεν to have been established.

Second Person Singular.

Here, too, we can see, I believe, the traces of a twofold form, *tva-tva*
and *tvā-tva*. From the second form arose the Skt. secondary *-thā-s*, in
which the *th* came from *tv* just as in the 2nd sing. act., while the *s* finds
a parallel in the secondary active termination.[5] The usual primary form
**-sai* (Gk. σαι, Skt. *sē*) on the other hand must have come from *tva-tva*,
and that, as I conjecture, by the following steps: *tva-tvi*, *sva-svi*, *sva-ï*
s-aï. The change of *t* to *s* has likewise its parallel in the active. I was
wrong, as Misteli (Ztschr. xv. 296) points out, in attributing this
change in my 'Temp. u. Modi,' p. 31, to the influence of the vowel *i* in *si*.
It is only in Ionic Greek that ι has this effect, while the *s* of the 2nd sing.
dates from the Indo-Germanic period. As in the active the *s* must owe
its existence to the conjunction with the spirant *v* to which, as a con-
tinuous sound, it has a closer relation than the *t*.

The Greek secondary termination -σο is to be compared with the Skt.
-sva of the imperative. Here the second pronoun has evidently disappeared
altogether, and the only question is how? Probably in no very different
way from that in which -μην was formed. I agree therefore with
Schleicher (Comp.[3] 673) in believing that at a time when the *s* was still
sounded here, *sva-s* was developed from *sva-svi* (as *-thā-s* was developed
from *tvā-svi*). Next this *sva-s* turned into *sva*, as in the 2nd pl. act.
tva-s into *tva*, or as in the 1st plur. act. *ma-s* became *ma*. Zend shares
with Greek the loss of the *v* in this place. In Zend we have by the side 89
of the *-hva* of the imperative(=Skt. *sva*) optatives and preterites in *-sa*
or *ša*.

The disinclination the Greeks had to σ between two vowels exposed
both primary and secondary terminations in Greek to fresh effacement.
In the thematic conjugation the σ disappeared altogether. The sound-
changes to which this gave rise must be discussed later. On the other
hand the sibilant shows the greatest tenacity of life in the verbs in -μι
and in the perfect, which is of an analogous formation. A clear and
certain principle cannot be laid down for the preservation of the σ on the
one hand or its loss on the other. For the indic. and imperat. present,
as for the imperfect, the forms in σ are the regular ones: ἵστασαι ἵστασο,
τίθεσαι, ἐτίθεσο, but it is only in Attic prose that this rule is observed,
the exceptions being ἐδύνω, ἐπίστω, ἐπρίω. In Homer beside δύνασαι A 393,
ὑποδάμνασαι π 95, παρίστασαι K 279, ὄνοσαι ρ 378, δαίνυσαι φ 290, we

[5] It would be very remarkable if this termination, which till lately seemed to be confined to Sanskrit, should turn out to have been preserved, in a slightly modified form, in Old Irish as well. Stokes conjectures this to be so in the *Beiträge*, vii. p. 8, regarding the 2nd sing. in *-tha* of the so-called praesens secundarium as the representative of the Skt. *-thās*. It is true that this rare form has no middle meaning, but Stokes shows that there are probably other cases where Keltic languages have preserved middle terminations with active meaning.

have δίζηαι λ 100, beside the commonly occurring imperat. ἵστασο (e.g. Λ 314) we have παρίσταο Κ 291, μάρναο Ο 475. In the imperfect the form in -σο never occurs at all in Homer, but we find ἐμάρναο χ 228, and even the contracted ἐκρέμω Ο 18. As to the practice of the other dialects our information is imperfect. Still the Boeotian πρίασο, Aristoph. Ach. 870, stands over against the Doric ἐπρίᾱ from Epicharmus (Ahrens, Dor. 198). Aorists like *ἔθεσο seem to have been unheard of. Here we have nothing but the Ionic ἔθεο and the Attic ἔθου. The trifling variations of post-Homeric poetical language and that of Herodotus possess but little interest for the student of the structure of the verb. Cp. Kühner, Ausf. G. i.[2] 540, K. W. Krüger, 'Histor. philolog. Studien,' ii. 44. It is noteworthy that the language seems never quite to have lost the sense that the term. -σαι was the proper and normal one, and it has consequently gained a fresh and increasing prevalence in late vulgar-Greek. The form ἠκροᾶσο in the comic poet Antiphanes (Bekk. Anecd. i. 98) ought perhaps, as Cobet holds (Var. Lect. 365), to be accented ἠκρόασο and be taken as a pluperfect, but κανχᾶσαι and the like occur in the N. T., and there are many more forms of the kind in modern Greek (Mullach, Gramm. der gr. Vulgarsprache, p. 229). Here Buttmann was farsighted enough to discern the train of an unbroken tradition.

90 THIRD PERSON SINGULAR.

In the case of this person Greek gives us no clue to a primitive reduplicated formation. We shall return later to the imperative, of which account might be made in support of such an hypothesis. The regular primary form -ται=Skt. *tē*, must be held to have been developed from the earlier stages *ta-ta* and *ta-ti*, the secondary -το (=Skt. *ta*), like -σο no doubt, from *ta-t*. A difficulty meets us, however, in this person, as to the meaning. Since the pronoun of the first and that of the second person possess a distinct character of their own, a reflexive meaning is naturally conveyed by the repetition of either of them: 'I—me or for me,' 'thou—thee or for thee.' But the pronoun of the third person indicates not the speaker nor the person addressed, but any other person whatever but these two. Consequently *ta—ta* is nothing but '*he—he*,' or, if one of the two pronouns is taken as dependent on the other, '*he—him*,' '*he—to him*.' That the two *he's*—subject and object—are the same person is not expressed. It is certain that this middle form, in as far as our explanation of it is the right one, arose at a time when there was as yet *no* reflexive pronoun, and language contented itself here as elsewhere with a dim indication, and left it to usage and the adoption into a systematic series of forms to provide it with its proper distinctness. Now this very process is to be seen in a much later linguistic period, when the reflexive pronoun had long existed in full force. αὐτὸς αὐτόν, αὐτοὶ πρὸς αὐτοὺς &c. is a frequent mode of expression especially in the Delphic dialect (Berichte der k. sächs. Ges. der Wissensch. philolog. histor. Cl. 1864, p. 225), for ἑαυτόν, πρὸς ἑαυτοὺς &c. So, too, with one inflexion for the two words, αὔταυτον &c. We need not therefore be staggered by this objection in adopting the explanation above suggested.

There is not much that need be said about the special Greek forms of the 3rd sing. For the Boeotian form with η for αι we have in this person the evidence of inscriptions (Ahrens, Aeol. 187): κεκόμιστη (C. I.

1569, l. 29), *ὀφείλετη* (ib. 33), *γέγραπτη* (Ernst Curtius, Rhein. Mus. ii. 1843, p. 106, Keil Sylloge I. l. 10). On the other hand the inscription 91
from Tegea edited by Ad. Michaelis (N. Jahrb. 1861, p. 585 ff.) gives us eight forms in *τοι*: *γένητοι* (l. 5), *δέατοι* (l. 10, 18, 49), *ἐπισυνίστατοι* (l. 16), *λυμαίνητοι* (l. 17), *ἰνδικάζητοι* (l. 36), *δικάζητοι* (l. 37), *τέτακτοι* (l. 45), *γέγραπτοι* (l. 53), which are of interest in so far as they prove that the difference between *αι* and *οι* is one of dialect only.

First Person Plural.

The analysis of the plural terminations in the middle voice is a problem of the greatest difficulty. In these forms language had to find means of denoting not only a reflexive relation but number as well. Now, as we conjectured that in the active a conjunction of two pronominal stems had already been used to denote the number, to be consistent we must now expect to find, as the result of that reduplication which we assume to be the formative principle of the middle, a conjunction of *four* pronominal stems: *I-thou—I-thou, thou-thou—thou-thou, he-he—he-he.* Schleicher actually makes the attempt to be true to this principle, and has in consequence to eliminate a great deal from his primary forms. Misteli's method of explanation (Ztschr. xv. 298) seems to me simpler and therefore better. He supposes that language began by simplifying her difficult task and contenting herself with a single instead of a double expression of the pronoun in the second position; that, in other words, she went to work with three stems instead of four, and was content to express the desired '*we-us*' by *I-thou-thou*, the '*ye-you*' by *thou-thou-thou*, and the '*they-them*' by *he-he-he.* If we adopt this solution we shall be brought to *ma-tva-tva*[6] for the 1st plur. weakened we may suppose at an early period to *ma-tva-tvi.* From this second step we proceed to *ma-tva-i* by the same 92
way as that which led us in the 2nd pers. sing. from *tva-tvi* through *tva-i* to *sva-i.* But next the *tv* underwent in this compound form similar transformations to those which took place in the simpler formations of the active. In the oriental branch of our stock it first became *dh* just as it did in the 2nd sing. imperat. (*dhi*). The term. *ma-dha-i* is the earliest form we can safely conjecture with no help but that of phonetic laws. It is the primary form for the Zend *-maidê* on the one hand, and the Skt. *-mahē* on the other. The Zend form is to be explained by the epenthesis of the *i* usual in Zend and the equally regular loss of the aspirate; the Skt. form by the reduction of *dh* to a simple *h*, which occurs e.g. in another personal termination drawn from the same source, in the 2nd sing. imperat. e.g. *junḗ-hi* by the side of *-çru-dhi.*

As to the Greek forms we can see at the outset that the *α* of *-μεσθα* or *-μεθα* is a weak sound as compared with the *αι* of the oriental termination. It belongs to the same stage as the secondary forms. *-μεθα* is related to a possible **-μεθαι* as *-το* (Skt. *ta*) to *-ται.* For this very reason

[6] I am aware that hypothetical forms so complicated as this are viewed with much disfavour by many scholars, and I am far from proposing them as final results. But still they are the products of a thorough and consistent consideration of linguistic structure. And if, as is generally admitted in principle, inflexion is the relic of agglutination, we may be allowed to postulate for primitive times polysyllabic formations like those which actually exist in agglutinative languages.

there is no separate secondary form in Greek for this person any more than for the 1st plur. act. Sanskrit had, however, besides the primary *-mahē*, acquired a secondary *-mahi*, which is evidently the result of an excessive weakening of **maha*. It is clear then that *-μεθα*, as far as its vowel goes, is intermediate so to speak between *-mahē* and *-mahi*.

It is not so easy to determine the relation of the *θ* to the *dh* of the *-madha* thus arrived at. If we conclude without more ado that *θ* came here as elsewhere from *dh* we shall find the *σθ* of the poetical *-μεσθα* a hard nut to crack. Schleicher, who takes this line, as I once did myself, is obliged (p. 679) to call the form *-μεσθα* 'not a primitive one,' which is as good as leaving it altogether unexplained, while Leo Meyer, who (Ztschr. ix. 430) ventures to say that it is 'beyond a doubt that the fullest form of the suffix we can arrive at was *masdhai*,' leaves us without an analysis for this form. We must try some other way then.
93 A form which, as we shall soon see, is amply attested in Homer has a right under any circumstances to be well weighed before we pass to the order of the day. If we split up *-μεσθα* into *-με-σθα* the *με* at once suggests the 1st plur. act., and *-σθα* suggests the fuller and older form of the 2nd sing. act. discussed on p. 35 ff. In the latter case the likeness cannot be regarded as complete, since, as we have seen, there was once an *i* after the *α*. Again, we regarded *-σθα* on the former occasion as having got its *σθ* from *tv* and not from *dh*. While referring the reader as far as the consonants are concerned to the excursus in which *σθ* in verbal forms will be discussed in general, I will only remark here that in consistency with the view taken above we must not go to *ma-dhai* but to a still older *ma-tva-i* for the primary form from which came the Sanskrit and Iranian form on the one hand, and the Greek on the other.

The termination *-μεσθα*, which we are thus led to regard as the oldest, occurs very often in Homer. It is true that in a large number of the forms in which it occurs *-μεθα* would unfit the word for the metre, e.g. in *ἱκόμεσθα* B 138, *γενόμεσθα* Φ 89, *μαχόμεσθα* E 875 (*μαχώμεθα* T 232), *νεμόμεσθα* M 313, *ἐδινεόμεσθα* *ι* 153, *δυνάμεσθα* B 343, *τιθέμεσθα* λ 3, *ὁπλισόμεσθα* *μ* 292, where the numerous short syllables make the usual termination impracticable, and in *τετιμήμεσθα* M 310, *ἐπισταίμεσθα* N 238, where metrical necessities of another kind exclude a short penultima. Still there are also forms like *πανσώμεσθα* H 290, Φ 467, *φραζώμεσθ'* I 112, *β* 168, the lighter forms of which in *-μεθα* would fit perfectly well into the verse. In the old Elegiac poets *-μεσθα* is only found once, Theogn. 671 *φερόμεσθα* (Renner, Stud. i. 2, 23), in Pindar (Peter, de dial. Pind. 59) also but once: *ἀπτόμεσθα*, Pyth. x. 28. All the three tragedians use this termination pretty often. They found it as handy for iambic and trochaic verse as the epic poets did for dactylic, only not in the same words. Hence in Aeschylus we find Prom. 822 *αἰτούμεσθα*, Sept. 144 (ch.) *πελαζόμεσθα*, Ag. 850 *πειρασόμεσθα*: in Sophocles *ἑζόμεσθ'* O. R. 32, *εἰσόμεσθα* O. R. 84, *ἀρχόμεσθ'* Ant. 63, *ἐπιστά-*
94 *μεσθα* 1092, *ἱστώμεσθα* O. R. 147, *ἐψόμεσθ'* El. 253, *γνωσόμεσθα* Aj. 677; seldom in other metres as in Philoct. 709 (ch.) *νεμόμεσθ'*, in Euripides Ion 1311 *λελυπήμεσθ'*, Phoen. 603 *ἀπαιτούμεσθ'*, 608 *ἐξελαυνόμεσθα*, 583 *ἀπωλόμεσθα*, Alc. 803 *ἐπιστάμεσθα*, 1157 *μεθηρμόσμεσθα*. Aristophanes has about as many as the tragedians: Plut. 101 *ἐξόμεσθα*, 330 *ὠστιζόμεσθ'*, 1160 *δεητόμεσθ'*, Equ. 565 *βουλόμεσθα*, 623 *ἡδόμεσθα*,

Av. 35 *ἀνεπτόμεσθ'*, 159 *νεμόμεσθα*, 164 *πιθώμεσθ'*, 1577 *ῃρήμεσθα*. Many of these references may now be found in Gerth, Stud. i. 2, 256 (cp. Kühner, i.[2] 536). On Dorian inscriptions there is not a trace of a *-μεσθα* to be found (Ahrens, 298); on the other hand, the Heracleic tables have three forms in *-μεθα* (Meister, Stud. iv. 420); there is no *-μεσθα* in the fragments of Epicharmus, so that the statement of Gregorius Corinthus that *-μεσθα* is Doric can have had no support but Theocritus, where it occurs once or twice. Although then the manifold necessities of the metre may have helped, as in other like cases, to *preserve* the termination *-μεσθα*, which dates from the Homeric epos, they certainly did not *create* it, and it would be contrary to the whole direction of the modern Science of Language to regard the *σ* as a meaningless and unintentional insertion. On the other hand, there is nothing to prevent us from regarding *-μεθα* as a thinner form of *-μεσθα*. An analogy is provided by the form *ὄπι-θεν* for *ὄπισ-θεν*, Boeot. *ὄπιτθεν*. So too *ἧτε* for *ἧστε*, *ἧμαι* for **ἧσ-μαι*.

The Aeolians seem to have known nothing of *-μεσθα*. But they, that is the Lesbians, had a different by-form. Apollonius de Adv. 604, 23 says: *εἰ τὸ α εἰς τὸ ε μεταπέσοι, τὸ τηνικαῦτα πρόςειςι τὸ ν παρ' Αἰολεῦσι τὸ λεγόμεθα λεγόμεθεν καὶ πάντα τὰ τοιαῦτα.* Though we have not a single example of this form, and although on the contrary we have in Alcaeus (fr. 18, 4) a *φορήμεθα* which the metre establishes beyond a doubt, still the reputation of a grammarian of such weight is enough to establish the fact (Ahr. 130). We ought no doubt to regard the *ν* as a permanently attached nasal addition, to which we shall find numerous analogies.

SECOND PERSON PLURAL. 95

Following the line we took in treating the 1st plur. in explaining the process by which language arrived at these forms, we shall here start from a primary *tva-tva-tva*, whose immediate successor was *tva-tva-tvi*. The first stem in the triplet seems to have shrunk first, and that into a simple *s*, the third suffered the same weakening we have often observed before, and was then represented by a simple *i*. This gives us *s-tva-i*, which the aspiration we have so often observed in the case of the pronoun of the second person turned into *s-dhva-i*, and this we ought probably to regard as the original form which immediately preceded the separation of the languages. Schleicher has discovered a trace of the *s* on oriental ground (Comp.[3] 680) in the Zend imperatives in *-zdûm* (e.g. *thrâ-zdûm* protect ye). *û* stands in the place of *va*; the form, like the more usual *-dhvem* and the Skt. secondary *-dhvam*, is of course a secondary one, and stands on the same level as the Gk. *-σθον*. The usual Gk. *-σθε* of the plural bears to the primary *-sdhvai* and the Indian *-dhvē* which has lost its *s* (*bhara-dhvē*=*φέρε-σθε*) almost exactly the same relation as that of *-μεσθα* to the Skt. *-mahē*. Here, as often, the secondary form does the work of the primary as well as its own. If the Skt. *jaǰa-dhva* =*ἄζε-σθε* (Kuhn, Ztschr. xv. 403) is genuine, we have in the *-dhva* a complete parallel to the Gk. *-σθε*. But this *-dhva* is doubtful, as it only occurs once (Rv. viii. 2, 37) in the imperative above mentioned (Delbrück, Verb. 48). The *m* which is heard at the end of *-dhvam* (Zd. *-dhvem*) is the same apparently that we observed on p. 51 f. in the dual forms.

Third Person Plural.

This, too, is best explained on Misteli's theory. While Schleicher (Comp.[3] 677) is obliged to derive the primary *anta-i* from *ant-anti*, according to Misteli, who starts from *an-ta-ti*, nothing has disappeared but the second *t*, and that loss was due to the dislike to excessive alliteration. The syllable *an* soon afterwards lost now its vowel now its consonant, leaving either *-ntai* or *-atai*. Both forms of the termination appear pretty equally in Sanskrit and Greek, while Zend, which is elsewhere so like Sanskrit, keeps the nasal always. It follows necessarily from this that the rejection of the nasal did not take place till after the separation of the languages, and it must have happened independently in the two languages Sanskrit and Greek. In the latter language there are numerous analogous cases of the loss of a final nasal, as in ἑπτά=*saptán*, δέκα=*dáçan*, α privative=*án*, but it also disappeared from the middle of a word in ἑ-κα-τό-ν (cp. *çátam*)=*centu-m* (primary form *kanta-m*). In the place of the *-νται* of ordinary Greek we find on an inscription of Aegosthenai the strange termination *-νθη* (*παργινύωνθη*, Beermann, Stud. ix. 77), with the same *θ* which we have already seen in the 3rd pl. act. The secondary *an-ta*, with the by-forms *n-ta* and *a-ta*, bears to the primary exactly the same relation that the *-ta* of the 3rd sing. does to *-ta-i*.

96

More special attention must be directed to the interchange of *-νται* and *-ντο* on the one hand, and *-ατται* and *-ατο* on the other. If, as is clearly suggested by the analysis of the forms, the *α* is an original component of the termination, we need not be surprised at finding this vowel even after vowels. We have seen something similar in the 3rd pl. of the active. In Sanskrit it is a distinguishing mark of the two main conjugations that the first, which corresponds to the Gk. conj. in *ω*, has *-ntē* (from *ntai*), *-nta*; while the second, which is to be compared with the Gk. verbs in *-μι*, has *-atē* (from *atai*), *-ata*. A precisely similar distinction is observable in Greek too, though we must notice, to begin with, that it is only Ionic Greek that shows many of these forms, and that Aeolic shows none at all. Even among the Ionians a tendency is to be seen, from Homer's time onwards, occasionally to employ *-νται*, *-ντο* by the side of the older *-ατται*, *-ατο*, where the tense-stems lend themselves readily to the change. As yet we know of only two forms in *-ατται* from Doric. The one is κιάται (=κεῖνται),—so accented according to Ahrens, Dor. 28, at l. 22 of the Cretan inscription edited by Rich. Bergmann, Berlin, 1860, —a form of the same stage as the Homeric *κέ-ατται*. The other is a compounded form, the Heracleic *γεγραψάται* (Meister, Stud. iv. 432), i.e. *γεγράφ-σαται*. These two isolated instances show that those forms are no exclusive property of the Ionic stem, but are forms of real antiquity, which had no doubt been more widely spread at an earlier time even on Greek ground.

97

For Homeric Greek the rule is a simple one. *ατται*, *ατο* are necessary after consonants and *ι*, possible after *υ* and long hard vowels, impossible after short hard vowels whether radical or thematic. The following instances, among which those confirmed by the metre are printed in spaced type, will give a clear idea of this. For our present purpose we need of course make no difference between the present or, it may be, aorist stems and that of the perfect, hence the instances are taken indifferently from both.

1) *-αται -ατο* after consonants (cp. Princ. ii. 293).

τετεύχ-αται N 22, *ἀγηγέρ-αθ'* (pluperf.) Δ 211, *ἐῤῥάδ-ατα* υ 354 (rt. *ῥαδ, ἀρδ*), *ἐρηρέδ-αται* Ψ 284, *ἀκηχέδατ'* (st. *ἀκαχεδ*, later *ἀκαχιδ*) P 637. Here belong *ἔ-αται* Γ 134, *ἕατο* H 414, which are written *εἵ-αται, εἵ-ατο* where the metre establishes a long syllable. The former is identical with the Skt. *ás-atē*, and so was originally **ἧσ-αται*, and hence it is probable that in Homer the word which in the old alphabet was written HEATAI was wrongly written *εἵαται* instead of *ἧαται* when the first syllable was long. The old grammarians and their modern followers could not get rid of the idea that *ει* is a mere Ionic lengthening of *ε*. *ἧντ'* in Γ 153 is quite an isolated form, perhaps one of the criteria of the late origin of the Teichoskopia.

2) *-αται -ατο* after *ι*.

κεκλί-αται Π 68, δ 608.—*δεδαί-αται* α 23.—*κατακείαται* Ω 527, *κείατο* Λ 162.—In the optative the only form found is *-ιατο*: *γενοίατο* B 340, *ἀπολοίατο* ι 554, *λαζοίατο* B 418, *πευθοίαθ'* α 157, *βιῴατο* Λ 467, *μνησαίαθ'* B 492, *ἐπιφρασσαίατο* B 282. The only exception is *μαχέοιντο* 'Αχαιοί Α 344, which gives an ugly hiatus, and Hoffmann is no doubt right in replacing it by *μαχεοίατ'*. A real exception in the case of *κεῖσθαι* is *ἐπέκειντο* ζ 19, for at Φ 427 it is best to write *ἐπὶ χθονὶ* 98 *κείατ'* for *κεῖντο*. The shortened *κέαται, κέατο*, which we shall have to discuss directly, also tell in favour of *κείαται, κείατο*.

3) *-αται -ατο* and *-νται -ντο* after *υ*.

εἰρύ-αται Α 239, *εἰρύ-ατο* Χ 303, *εἰρύ-ατο* Ξ 30—on the other hand *-νται, -ντο* after the same letters: *εἴρυντο* M 454, *κέχυνται* E 141, *χ* 387, *λέλυνται* B 135, *ῥήγνυντο* Υ 55, *κίνυντο* Δ 281.

4) *-αται -ατο* after *η* and *ω*.

βεβλή-αται Λ 657, *βεβλήατο* Ξ 28, *δεδμήατο* Γ 183, *κεκλήατο* K 195, *πεποτήαται* B 90, *πεφοβήατο* Φ 206, *κεχολώατο* ξ 282. On the other hand *μέμνηντο* P 364, *ξύμβλητο* Ξ 27.

5) *-νται -ντο*

are found invariably after *α*: *δύνανται* N 634, *δύναντο* N 552, *ἵσταντο, πέπτανται* E 195, *μάρναντο* often, as also after *ε*: *τίθενται, τίθεντο, ἔθεντο*, and after the thematic *ο*: *πείθονται, γένοντο, ὄλοντο* &c.

This pretty simple rule submits even in Homer to the modification, that the long vowel or diphthong is occasionally shortened before the *α* of the termination: *ἔ-αται* Γ 134, for *ἧ(σ)-αται, ἕατο* for *ἧ(σ)-ατο* H 414, *κέαται* Λ 826, *κέατο* N 763, for *κείαται, κείατο*. It would be essentially as lawful to write *-ήατο* here with shortened *η* as in *βέβληαι, οὐδ' ἄλιον βέλος ἔκφυγεν* Λ 380, and similarly *κείατο* with *ει* shortened as in *ἐπειή*, while there is nothing to be said for *εἵαται εἵατο*, where we should have to suppose the *η* first shortened to *ε* and then lengthened again and length-

ened to *ει*. To this same expulsion of *ι* before *α* is due the optative *δαινύατ'* *σ* 248. This shortening effected by the following vowel became general in the New-Ionic, where *ἕαται, ἕατο, κατέατο, κέαται* (Archil. 170), *κέατο* are the only forms in use, though there are also *ἐδεδέατο, ἡγέαται, οἰκέαται, πεπονέαται, ἐμεμνέατο, κεκλέαται, κεκινέαται* (Hippon. 62, 2) and other forms of the kind (Bredow, p. 328) where the corresponding Homeric
99 forms have *-ηαται*.[7] And as the New-Ionic dialect has a decided preference for such accumulations of vowels, the *-αται, -ατο* not only established itself in such forms as merely admitted of it in Homer, e.g. in *ἀπεδεικνύατο, ἱδρύαται*, and in the above-mentioned *κέαται*, but even made its way into words in which it followed short hard radical vowels: *τιθέ-αται, ἐκδιδό-αται*, neither of which are really more remarkable than *τιθέ-ασι, διδό-ασι*. *α* is dissimulated to *ε*: *δυνέ-αται, ἐπιστέ-αται, πεπτέ-αται*. But forms like *ἐβουλέ-ατο, κηδέ-αται* for *ἐβούλοντο, κήδονται* must be regarded as apocryphal, since it is against all analogy that the thematic vowel should be attenuated to *ε* and followed by *-αται, -ατο*, instead of *-νται, -ντο*. This is the decision arrived at by Dindorf (praef. p. xxvii.) and Abicht (Philol. xi. 275[8]), and now adopted by other editors of Herodotus and students of his dialect (Stein, Herodotus, 4th edit., Berl. 1877, p. 57).

In Attic Greek *-αται, -ατο* only survived after consonants, and even then only in the perfect, and served as a distinguishing mark of the older Attic writers, who therein closely follow Herodotus; so in Thuc. iii. 13 *ἐφθάραται*, iv. 31 *διετετάχατο*, v. 6, vi. 4 *ἐτετάχατο*, Xenoph. Anab. iv. 8, 5 *ἀντιτετάχαται*, Plato, Rep. vii. 533 *τετράφαται*, and it has the testimony of the inscription of Methone which dates from the beginning of the Peloponnesian war (Sauppe, Inscriptiones Macedonicae, iv. p. 7), where we find *ἐτετάχατο, γεγράφαται* (cp. *ἀναγεγράφαται*, C. I. 75, 3). Moreover the dramatic poets did not regard the opt. in *-ιατο*, the only form in use with Homer and Herodotus (cp. too Simon. Amorg. i. 22, vii. 107, Charon of Lampsacus in Ath. xii. 520 *ἐξεπισταίατο*), as too outlandish to be used in their poems in passages where a tinge of antiquity was not out of place, and they found it very useful metrically, especially at the end of the verse. Fischer, ad Wellerum, ii. 418 (cp. Matthiae, § 204,
100 7a), gives the following instances: Aesch. Pers. 451 *ἐκσωζοίατο*, 369 *φευξοίαθ'* (both in a messenger's speech), Suppl. 754 *ἐχθαιροίατο*, Choeph. 484 *κτιζοίαθ'*, Sept. 552 *ὀλοίατο*, Soph. Aj. 842 (?) *ὀλοίατο*, O. R. 1274 *ὀψοίαθ'*—*γωτοίατο* (messenger's speech), O. C. *δεξαίατο* 44, *πεμψαίαθ'* 602, 921 *πυθοίατο*, 945 *δεξοίατ'*, El. 211 *ἀπωναίατο* (in a choral passage), Eurip. Hel. 159 *ἀντιδωρησαίατο*, Herc. fur. 547 *ἐκτισαίατο*, Aristoph. Pax. 209 *αἰσθανοίατο*, Av. 1147, Lys. 42 *ἐργασαίατο*, Nub. 1199 *ὑφελοίατο*.

Now that we have examined the extent to which these forms in

[7] The form *πεπλήαται*, used by Simonides Amorg. 36, stands alone. Cp. Renner, *Stud.* i. 2, 24.

[8] Acc. to Abicht (cp. Kühner, i. 548), though there are any amount of presents in *-ονται*, there are only three in *-εαται*, none of which has the authority of the best M.S., the Medicean. Among thousands of past tenses, there are only six forms in *-εατο* which are attested by all the M.SS. But as there is not the least probability that a prose writer said *ἐγένοντο* ten times and changed it the eleventh to *ἐγενέατο*, it cannot be doubted that these forms made their way often into the inferior M.SS., and occasionally even into the better ones, on the false analogy of the pluperfects and preterites, like *ἱστέατο*.

-αται, -ατο occur, it remains for us to notice a view of their origin which may appear to some not unwarrantable. In cases where *-ται, -ατο* come after vowels, and such cases are the majority, it is not unnatural to conjecture that we have here the result of a composition, and Schleicher (Comp.[3] 678) declares this view to be a tenable one. There is nothing surprising in the idea that there should here have been a composition with the 3rd pl. mid. of the rt. *as*, Gk. *ἑς*, which would be *ἔσ-αται, ἔσ-ατο*, since we meet with such compounds in the active, and not only in past tenses like *ἔ-δο-σαν, ἔ-φα-σαν*, but in *ἰ-σασι=ϝιδ-σαντι* and *εἴξασι=εἰκ-σαντι*. But for all this it is only the Heraclean *γεγραψάται* mentioned on p. 64 that could be allowed to be thus compounded. The forms with a *δ* like the already mentioned Homeric *ἀκηχέδ-αται, ἐρηρέδ-αται, ἐληλάδ-ατο*, or the Herodotean *ἐσκευάδαται, κεχωρίδαται*, and again forms like the Herodotean *ἀπίκαται, ἀπίκατο*, exclude all possibility of such an origin. Nor is it any more probable for *ἐστάλ-ατο* (Hes. Sc. 288), *ἐφθάρ-αται* (Thuc. iii. 13). Phonology teaches us that it is only between two vowels that a *σ* can fall out. Now it is scarcely necessary to point out how unlikely it is that *βεβλή-αται* and *εἰρύ-ατο* should have arisen in any other way than the consonantal forms. We had to come to a similar decision on p. 48 in the case of the 3rd pl. active. We have just as little ground for conjecturing the loss of a *σ* here as in *τιθέασι* or *μεμάασι, γεγάασι*.

DUAL FORMS IN THE MIDDLE VOICE.

The dual of the middle voice has this advantage over that of the active that it has a first person to itself. It is true though that the termi- 101
nation *-μεθον* is by no means connected organically with the corresponding Skt. *-vahē*. The latter is clearly to be referred, on the analogy of the 1st pl. *mahē*, to a preceding *va-dha-i*, so that here, as in the active, the existence of a weaker form in *v* by the side of the stronger in *m* was made use of to differentiate the two numbers. In Greek it was otherwise. Between *-μεθον* and *-μεθα* there is clearly no greater difference than between the Aeol. *-μεθεν* and *-μεθα*.

It is true that the existence of the whole form as such has been called in question. Elmsley on Aristoph. Acharn. 741 (733, 698), where he expresses the doubt referred to on p. 54 of the correctness of the usual schema of the active dual, has the merit of having pointed out that the form in *-μεθον* only occurs three times in good authors, i.e. Ψ 485 *δεῦρό νυν ἦ τρίποδος περιδώμεθον ἠὲ λέβητος*, Soph. El. 950 *μόνα λελείμμεθον*, Philoct. 1079 *νὼ μὲν οὖν ὁρμώμεθον*. In all these three passages it has the testimony of the best M.SS., but is not demanded by the metre, for in Homer there would be nothing impossible in a hiatus after *περιδώμεθα*. Moreover Hesychius's gloss *περιδώμεθα· συνθώμεθα* is evidence that there was such a reading in this passage. To these we must add the would-be antiquarian Pompeianus in Athen. iii. p. 98—also adduced by Elmsley—who says in the address to his slaves *πρότερον συντριβησόμεθον, ἔπειθ' οὕτως ἀπολούμεθον*. Bieber, de duali numero, p. 18, shows how often in Homer and the dramatic poets the opportunity for using this form was neglected, and that even the Ὁμήρου Ἐπιμερισμοί in the Anecdota Oxon. i. 406, actually give *τινύμεθα* as a dual. For all this Buttmann, A. Gr. i.[2] 343, and G. Hermann on Soph. El. 937 (950), and Kühner, i. 543, are no doubt right in deciding that Elmsley

goes too far in wanting to reject this form everywhere as an invention of the Grammarians. A rational criticism will always be inclined to see a relic of antiquity in exceptional forms which do not violate analogy. How could such forms have been invented? It is easier to imagine that a by-form of the 1st pl. was by local usage, or the influence of a grammatical theory, and not without reference to the *-ον* of other dual forms,
102 transferred from the plural and stamped as a dual. In German a syntactical difference has sprung up between forms like *ich wurde* and *ich ward*, and in Latin the distinction, at first purely phonetic, between *e* and *i* in certain ablatives, as too that between the 3rd pl. in *-ērunt* and *ēre*, gained by usage somewhat the character of a distinction of meaning.

The second person dual can be derived in the same way from the 2nd plural. *φέρεσθον* is no further from *φέρεσθε* than *φερόμεθον* from *φερόμεθα*. The Sanskrit 2nd plur. of secondary forms, if we neglect the Vedic *-dhva* mentioned on p. 63, is *-dhvam : bhára-dhvam*. This must be identical with the 2nd dual *φέρεσθον*. As the 3rd dual, *φέρεσθον* bears exactly the same relation to the 2nd as *φέρετον* does in the active. That is, the *αθ* which arose in the 2nd dual from the repetition of the pronoun of the 2nd person, arose in the 3rd dual from the repetition of the demonstrative stem *ta*, no doubt from *ta-ta-ti*, *t-ta-t*, *t-ta*. The Skt. and Zend forms here present so many difficulties that instead of explaining the Greek they need explanation from them. We must notice further the analogy between the secondary *-σθην* and the active *-την*. The lengthening is to be explained in both cases as due to the use of the lengthened *-tā* instead of *-ta* in the latter termination.

Excursus on the *σθ* in personal terminations.

In the course of our investigations we have come repeatedly upon forms with *σθ* in them, the etymology of which we have not found it easy to explain. We may say that the right view of this *σθ* furnishes the key to a whole row of problems hitherto but imperfectly solved. As a step towards the attainment of this let us pass all these forms collectively under review.

This *σθ* occurs in the following personal terminations, along with which we will consider at the same time some other forms which will occupy us in a different connexion later on—

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1)	2 Sing. Act.		in *σθα* (*ἔ-φη-σθα*)
2)	1 Pl. Middle		„ *μεσθα*
3)	2 Pl. „		„ *σθε*
4)	2 Du. „		„ *σθον*
5)	3 Du. „		„ *σθον*
6)	3 Du. „		„ *σθην*
7)	3 Sing. „	Imperat.	„ *σθω*
8)	3 Pl. „	„	„ *σθων*
9)	3 Du. „	„	„ *σθων*
10)	Inf. „		„ *σθαι*

It is probable *à priori* that the same conjunction of sounds in all these various forms arose in the same or in a similar way, and hence that we may make use of such by-forms as there are for any of them in Greek dialects as analogies to explain the rest. Of by-forms there are these—

For No. 7 Locr. χρήστω=χρήσθω on the Locrian inscription edited by Ross following Oekonomides l. 8, ἑλέστω=ἑλέσθω at l. 10 of the same.

For No. 10 on the same inscr. l. 16 ἑλέσται=ἑλέσθαι, and on the Locr. inscr. edited later by Oekonomides at l. 19, 23, 26, 28, χρῆσται, l. 32, 33 ἀρέσται, l. 41, 44 παματοφαγεῖσται.

Again—

For No. 7 the Cret. ἀποϝειπάθθω as it is very probable we ought to read at l. 11 of the Gortynian inscription most lately discussed by Voretzsch and Savelsberg (Fleckeisen's Jahrb. 1869, p. 665 ff.) for the recorded characters ΑΠΟϜΕΙΠΑΘΘΟ. At l. 40 of the Cret. inscr. edited by Bergmann (Berlin, 1860) the traces of a 3 pl. imperat. in -τσ-[εθ]θων are too doubtful to prove anything, especially as at l. 11 the ordinary σθ appears in the inf. ἀφαιλησέσθαι.

For No. 10 the Cret. ἀναιλίθαι, Gortynian inscr. l. 4, apparently= ἀναιλεῖσθαι (Voretzsch ut supra 673). To this we can now add ποήασσαι=ποιήσασθαι from the Olympian inscr. of Damokrater (l. 33).

These dialectic by-forms entitle us I think to assume two things: first, that the θ is not an essential and inherent element in these termina- 104
tions, but grew out of a τ; in the second place, that the σθ belongs to a class of sound-groups which have been considerably changed by dissimilation and assimilation. The examination of the 2nd sing. in -σθα (p. 37) brought us to an unaspirated *t*, and in many other instances it looked probable that spirants had had a hand in the formation of the σθ.

The most familiar phonetic laws serve thus to account very simply for the forms of the imperative middle. As Schleicher says (Comp.[3] 676), 'It is possible that these forms sprang from middle terminations in which the initial consonants of the two pronouns of the 3rd or 2nd person were brought into juxtaposition by the disappearance of the intervening vowels, and that ττ became στ and then σθ.' I think that we can explain the σθ in the 3rd sing. imperat. middle (No. 7), e.g. in φάσθω, which we shall afterwards refer to an older *φάσθωτ, by supposing it to stand for ττ, that is φάσθω for φα-τ-τω-τ, in which the connexion of the exponent of the 3rd pers., which is doubled for emphasis' sake, with the preceding τ, which is the sign of the same person, gives *he-he-himself*, and that is the mark of the imperative middle.

The same explanation serves for the 3rd plur. The fact that the ν of φάσθων is wanting in the Doric dialect shows it to be no essential part of the termination, and φά-σθω, as will be shown hereafter, stands for *φά-σθω-τ. We will postpone the discussion of the remarkable forms in -υσθω to a later section of this book (ii. 51 ff.). The 3rd pl. of the imperat. middle was evidently not always identical with the 3rd sing., while in the 3rd du. imperat. midd., e.g. φάσθων (No. 9) the absence of dialectic by-forms precludes the formation of a definite opinion about the final letter. It is enough for our purpose that we can with great probability set down for the three 3rd persons of the imperative middle the series—

ττ στ σθ

and explain the σ by dissimilation, and the θ as due to the aspiration so frequent after a σ (Princ. ii. 110). In the Cretan form in θθ we must assume that after dissimilation had done its work a retrogressive

105 assimilation took place. This dialect shows other instances of the tendency to assimilate a sibilant to a following explosive (Hey de dial. Cret. p. 33).

Nearest to these imperative forms come the 3rd duals in *-σθον* (No. 5) and *-σθην* (No. 6). We have seen that there was no original and thoroughgoing distinction between dual and plural forms, and so we must expect to find the same elements in the *σθ* of these forms as in that of the imperatives. Here too then the series is *ττ στ σθ*.

Having thus disposed of five of the ten forms, we now turn to the 2nd persons dual and plural in *-σθε* and *-σθον*. They differ from the 3rd persons just discussed in much the same way as the 2nd pl. act. in *τε* and the 2nd dual act. in *τον* from the 3rd dual in *τον*, that is, the first dental sound in these 2nd persons is to be referred to the pronominal stem *tva*, that of the 3rd to *ta*. There is therefore nothing to prevent our referring the *σθ* in *φά-σθε*, *φά-σθον* likewise to a *ττ*.

The three remaining forms are more difficult. The 2nd sing. in *-σθα* and the 1st plur. in *με-σθα*, as we saw on p. 37, are again the most nearly connected of the three. The cases hitherto examined will incline us to suppose a similar process of development here. In the first place analogy, on all strict rules of procedure, leads us straight to the supposition that as *-σθω* and *-σθαι* arose directly from the authenticated dialectic by-forms *-στω* and *-σται*, so our *-σθα* arose from a **-στα*. This step brings this termination considerably nearer to the Lat. *-stī* and the Goth. *-st* mentioned on p. 36. In the next place we may conjecture that *στ* arose here, as in the cases already analysed, from *ττ*. This *ττ* again can hardly have arisen in any other way than by progressive assimilation, and consequently from the *tv* of the pronominal stem *tva*. It is true that it would be hard to find more than one instance of such assimilation in Greek; Att. *τέτταρ-ες*, Boeot. *πέτταρ-ες* (Ahrens, Aeol. 176) from the primary form *katvar-as*, but this one, which is beyond a doubt, is enough to corroborate the conjecture that *ττ might* have come from *τϝ*. In this instance, it is true, the *ττ* remained intact in older Attic and in Boeotian at least,
106 while in the personal terminations it underwent further transformations. But there are other cases in which the tendency to phonetic lightening went further in terminations than in stem-syllables. If we assume then that in the same period of the language which saw forms like that deduced on p. 69 and **φάττω* and **φάττε*, the 2nd pers. sing. was *ἔ-φηττα*, it is not surprising that *ἔ-φησθα* should have come from the latter by way of **ἔ-φησται* in the same way as *φάσθω* arose from **φάττω* and *φάσθε*, as it appeared, from **φάττε*.

There remains the infinitive in *-σθαι*. Here we have in addition to the Locrian forms in *-σται* above mentioned Hesychius's isolated *ἴτθαι· καθίσαι*, for which Mor. Schmidt wants to read *καθῆσθαι*. The *τ* in this form may have come from the radical *σ* as in *ἑττία=ἑστία* (Hes.), and this leaves us with *-θαι* for the termination, which bears to the *-σθαι* of ordinary Greek the same relation that *-μεθα* does to the Homeric *-μεσθα*. If, as Ahrens 177 holds, this form were Boeotian, we should expect *η* instead of *αι*, on the analogy of *ἀπογράφεσθη*, *δεδόχθη* (Ahrens 187), both in inscriptions.

We may follow Bopp (Vgl. Gr. iii. 330) and Schleicher (Comp.[3] 446) in making a comparison between the middle infin. termination and the Vedic *-dhjāi*, Zd. *-djāi* or *-dhjāi*, e.g. in the Skt. *jaǵa-dhjāi*=Gk *ἄζε-σθαι*,

although the oriental termination expresses the action in itself without reference to active or middle meanings. It must be admitted that this difference in meaning does not amount to so much in the case of the infinitive, which seems from the first to have expressed merely the action as such and not a definite relation to a subject. The inquiry into the origin of the termination we will postpone to a later chapter. Here we have to deal only with the relation of the Gk. *-σθαι* to this *-dhjāi*, and I think the simplest explanation of this is the following. From *-dhjāi*, when the soft aspirates generally shifted into hard ones, arose *-θjαι*, thence, by progressive assimilation, *-θθαι*, or as it is probably more correct to write it, *-τθαι*. It would be not at all surprising if we were to discover on a Boeotian inscription forms like **γράφετθη* by the side of the actually existing *ἀπογράφεσθη*. For the present we must make what use we can of the above-mentioned *ἴτθαι*. From *-τθαι* the next step was 107
to *-σθαι* by the usual dissimilation. A distant analogy may be noticed in the process which must be assumed to explain the Homeric *πέποσθε* (*πεπονθ-τε*, *πεποστε*, *πέποσθε*). Whether the Elic *ποήασσαι* came from the ordinary *ποιήσασθαι* or by assimilation from an earlier form is a question I cannot decide.

Several of the views here presented owe their origin to a paper read many years ago in my 'Grammatische Gesellschaft' by Dr. Richard Klotz, which he has allowed me to use here. Other related matter received a similar treatment by Allen, Stud. iii. 243. I differ from the latter, who moreover deals with a part only of the forms here discussed, mainly in this, that I cannot admit the assumption that *θ* in these old forms expanded by a purely phonetic process into *τθ*.

CHAPTER III.

THE AUGMENT.

No special mark is needed to distinguish present time, for the connexion of the stem with the terminations naturally conveys the impression that the subject and predicate are to be thought of as connected at the time which is present to the speaker. Whether notwithstanding there may have been a period when the same forms served for past time as well, may be left an open question. It is certain that there arose very early a special form to designate a past action, and that this form was characterised by two things, the augment, and the shorter, secondary form of the personal terminations. These secondary terminations have been already discussed in the first chapter, where we conjectured that the weight added to the beginning of the word by the augment furnished the first inducement to the shortening of the terminations. This is the place at which to treat of the augment as the linguistic element which serves in its proper function, and probably served at first solely, to express past time.

108 Our word *augment* is a translation of the αὔξησις of the later grammarians. Lentz, Herodian I. p. lxxxviii, following Skrzeczka, shows that this term is not to be found in Apollonius Dyscolus or Herodian, who describe the prefixing of the augment much more aptly as a part of the κλίσις or κίνησις of the verb, whereas the name augment implies an unessential and purely external accretion. We shall, however, retain the old term.

The augment is only found in Sanskrit, Iranian, and Greek.[1] It consists in the syllable *ă*, Gk. ε—instead of which there are some traces, to be discussed below, of a long vowel—and this syllable is prefixed to the verbal form, and that only in the indicative mood. In the language of the Vedas as in that of the Homeric poems the augment is sometimes left out. To conclude from this that it was not an essential part of these forms seems to me (so too Delbrück, Altind. Verbum, p. 80) rash, for there are other cases where a language vacillates between a fuller and a shorter form, and where we are right in holding the fuller to be the more perfect of the two. As soon as a language has, with the aid of its meagre store of elements, succeeded in providing a distinct expression for any given notion, one or another of these elements may be discarded again without any loss of distinctness. As an instance of this take the way in which secondary personal terminations in many cases take the place of primary ones, or that in which the original *s* of the nom. sing.

[1] Since Armenian seems proved by Hübschmann's investigations to be an independent and individual link in the chain of Indo-Germanic languages, it deserves to be noticed that there are traces in this language too of an augment, and that too in the form of *e*, e.g. *e-di* = **ĕ-θη-ν*, *e-tu* = **ĕ-δω-ν* (Hübschmann, Ztschr. xxiii. p. 34).

or the *s* of the Skt. acc. plur. in *ns* is lost. It is not to be wondered at that a prefix of such little weight, which moreover, in Greek especially, does not always help the metre in poetry, should early have found its existence precarious, and have been discarded altogether in the majority of the related languages. It is surprising, on the contrary, that this element should have survived as much as it has in languages of three different families. Without the assumption that the augment was at one time present in all forms expressing past time, the organism of 109
tense-forms seems to me inexplicable.

If, therefore, differing from Schleicher (Comp.[3] 738), we regard this *a* as having formed from the first an essential part of the preterite, we have to ask next what view is to be taken of its origin. On this point very different opinions have been expressed,[2] the most important of which we will now proceed to examine.

1) Buttmann in his Ausführl. Gram. I.[2] 312 expressed the opinion that the augment was only a curtailed reduplication. Thiersch agrees with him, saying at p. 231 of his 'Griechische Gr. vorzüglich des homer. Dialekts' that 'the syllabic augment was originally identical with the reduplication;' so to a certain extent does Pott, who (Et. Forsch. II.[1] 73) calls the augment 'a variety of the reduplication,' and (Doppelung, p. 226) 'an embryonic reduplication.' There are various points in the Greek use of the augment and the reduplication which at first sight seem to make for the identification of the two. The reduplication now and then actually assumes the same form as the augment: *ἐ-ζήτη-κα ἐ-ζήτη-σα*, and although again the former seems to belong properly to the perfect, it appears in aorists like *λέ-λαθ-ο-ν, πέ-πιθ-ο-ν*, to be taking the place of the augment. But we encounter difficulties as soon as we look further. In Sanskrit the augment always appears in the form *a*, while the reduplication always changes its vowel to suit the stem of the verb: *á-tuda-m* but *tu-tóda*, *á-bhēda-m* but *bi-bhéda*. This objection, raised also by Bopp (Vergl. Gr. ii.[2] 422), might perhaps be met by the not impossible supposition that, as has been sometimes argued, among others, by Nölting, in his essay 'über den genetischen Zusammenhang des Aoristus II. mit 110
dem Perfectum II.,' Wismar, 1843, the original vowel of the reduplication was in all cases an *a*. The Skt. forms *ba-bhūv-a* (rt. *bhū* be) and *sa-sūv-a* (rt. *sū* to bring forth), and the Old-Latin perfects *pe-posc-i*, *pe-pug-i* (later *po-posc-i*, *pu-pug-i*), are in favour of this supposition.

A still weaker point in this theory is the conjecture that such a number of initial consonants should have disappeared with no sufficient cause; and yet this is what we must suppose in order to get from **ba-bhēda-t*, which we must start from, to *á-bhēda-t*, and that too for the early period before the separation of the languages, when the articulation was generally strongly marked, for anyhow there must have been an *a* then that was completely distinct from the **ba*, **ka*, **ta* &c. The specifically Greek habit of putting *ἐ* instead of *σκε, σπε, στε, ζε*, where the verb-stem begins with a double consonant, is therefore no adequate

[2] Compare, too, the Leipzig doctoral dissertation of Konrad Koch, *De Augmento apud Homerum omisso*, Brunsv. 1868, the introduction to which gives several of the views mentioned below.—To this we may add P. Molhem's careful work, *De augmenti apud Homerum Herodotumque usu*, Lundae, 1876, and the accurate examination of Hesiodic usage in Rzach, *Der Dialekt des Hesiodos* (8th supplem. to the *Jahrbücher für Class. Philologie*), p. 431 f.

analogy. Again, the identification of the reduplication with the augment necessitates in all consistency the identification of all past tenses with the perfect in their terminations as well, and it is clearly no use to attempt that.

The most important objection, however, is to be gained from the impress borne by the verbal forms themselves. The augment belongs exclusively to the indicative, the reduplication is excluded from no mood, not even from the participle and infinitive. The augment serves, that is, to mark a past tense; it is the exponent of a grade of time, while the reduplication characterises a tense-stem all through, attaching itself firmly to it, not confining itself exclusively to the perfect stem, but appearing occasionally in the present and aorist as well. From this it is clear that the reduplication was not originally a mark of past time, and that the apparent substitution of the reduplication for the augment in certain aorists is not what it seems, for, as will be shown below, the augment occurs sometimes in these very aorists as a sign of past time prefixed to the reduplication which characterises the tense-stem as a whole: ἐ-κέ-κλε-το. Moreover the fact that the pluperfect shows the two united is a clear proof that we have here to deal with two quite distinct linguistic elements. For these reasons we may regard this view as exploded. It was a natural attempt to explain the more difficult form by means of one which seemed a somewhat more comprehensible one, but it belongs to a more backward stage of the Science of Language than the present.

111 2) Hoefer in his 'Beiträge zur Etymologie' (Berlin, 1839), p. 388, attempts to connect the augment with the Teutonic prefix *ga* (*gi*, *ge*), which seemed in its application to the expression of the perfect to come near to the function of the augment. But the assumption that the initial consonant of this prefix originally varied between a guttural explosive and the dental sibilant, and then disappeared altogether, will scarcely find acceptance with anyone. Besides, this attempt too rests on a confusion of the meanings of the perfect and the preterite.

3) A third explanation is that given by Bopp (vgl. Gr. II.² 415), who takes it to be the *a* privative. This is met at the outset by an objection on the ground of the form. The negative prefix is only *a-* before consonants, but is elsewhere *ἀν-*, while there is not a trace to be found of a nasal in the augment. In regard to meaning, however, this hypothesis is less satisfactory still. It is true that past time is not present, but it is highly improbable that language should have marked it as not present. The negative force of the perfect in *dixi* I have said my say, *fuimus Troes* and the like, to which Bopp appeals, is by no means enough to prove this. In the first place we have in this usage not a preterite, but that kind of perfect which we may term absolute. The statement of the full completion of an action implies, it is true, that it is no longer continuing, but the preterite, which transports the action to a section of past time chosen at will, does not present a contradictory opposite of the present. So far is it from this that the so-called gnomic aorist actually puts before us something done in the past as a rule that applies to all time: *κάτθαν' ὁμῶς ὅ τ' ἀεργὸς ἀνὴρ ὅ τε πολλὰ ἐοργώς.* Again, a negation prefixed to a verbal form, as *nescio* and the like show, negatives the whole assertion, not merely a comparatively accidental qualification like that of time, a qualification moreover which on this showing is itself expressed by no

special external mark. If, then, the *a* in *á-tuda-m* were negative, it would mean, as opposed to *tudá-mi*, 'I do not strike,' not 'I struck.' For all these reasons, this explanation, which Bopp himself was so little satisfied with that he proposed another, to be mentioned below, as an 112
alternative, may be set down as erroneous.

4) Benfey, in his Kurze Sanskritgrammatik, p. 85, and the Kieler Monatsschrift, 1854, p. 733, sees in the augment, 'as the original instrumental case of the pronominal stem *a*,' the expression of the relation to another action. He quotes the use of the present in Sanskrit with the particles *purâ* 'before,' and *sma*, which he supposes to mean 'at the same time with,' and concludes that 'in these cases past time is, properly speaking, only in so far denoted as the action to be thought of as occurring in it is represented as having happened *along with*, or *before*; is represented that is as *tempus relativum*, which is exactly what is expressed by the old Indo-Germanic imperfect.' Benfey, too, brings the Teutonic *ge* into the question, and assigns to it a similar function. But there is a fundamental error here. The syllable *ge* does mean 'together,' but by no means the putting one action together with another: it denotes the collection together of all the elements of an action, and resembles the *con* in *conficio*. It thus expresses not an external but an internal connexion, and provides the verb with a means of expressing completion, and for this very reason its temporal force is a secondary and not an essential one, and has only gradually become attached to it. The notion of relativity, moreover, would at most only fit in with the meaning of the imperfect, but not at all with that of the aorist, and would not be a probable accompaniment even of the imperfect, for in dealing with this tense too we certainly ought to start from its use in simple isolated sentences. The relativity is clearly only a *result* of the durative force of the imperfect, so aptly represented in the Gk. name παρατακτικός.

5) There is but little difference between Benfey's view and that of Scherer, and it seems to me that both are equally unsatisfactory. The latter conjectures (Zur Geschichte der deutschen Sprache, p. 230) the primary meaning of the augment to have been 'near at hand.' It will not be easy to establish the connexion of this meaning with the pronominal stem *a*. But granting it might mean this, I cannot see how the notion of nearness could be transformed into that of a past time, which is anyhow *not* next to the speaker. It is true indeed that Scherer believes 113
that this augment was as it were only an accessory indication of what was already implied in the form itself, and ends by translating this *a* or *ā* by *there*, and thus arrives at a view which is not far removed from that to which we are coming next.

6) By the side of the explanation given under 3) Bopp mentions another which he thinks a possible one. Though he regards the two explanations as nearly the same, they are really very different. On p. 420 he expresses the opinion that language, in prefixing an *a* to verbs, may perhaps 'not have been thinking of the negative *a*, and not have meant to deny the existence of an action in present time, but have used the *a* as a real pronoun in the sense of *that*, and so have intended thereby to transport the action "away there"—to the time lying in the distance and behind them.' Schleicher adopts this view, inasmuch as he regards the reference to past time (p. 749) as the function of the *a*, and so does Richard Garnet in the Proceedings of the Philological Society, Vol. I.

(1844), p. 265, where various parallels not all equally apt are adduced from other languages, some of which are quite unconnected with the Indo-Germanic stock. It deserves notice anyhow, that languages of a less formed character denote past time, and future too, by particles that point to the distance. If the pronominal stem *a* meant *that one yonder* as an actual pronoun, in an uninflected form it must have corresponded to our *there*, and, temporally, to our *then*. Scherer is unwilling to allow that the stem *a* points to something at a distance, and mainly for this reason: he recognises this same stem in the *a* of *aham* 'I.' It may be doubted whether this stem always and exclusively had the force of pointing to a distance. Most of these distinctions between 'this' and 'that,' 'here' and 'there,' were probably developed antithetically in each separate language. It cannot be denied, however, that a series of forms undoubtedly belonging to this stem are used to refer to something at a distance. Scherer himself mentions the fact that in Zend *athra* there is contrasted with *ithra* here. The Skt. *á-tra* when used of place means *here*, but when used of time *then*, *at that time*, so too *a-tas thereafter*, *a-ti out beyond there* (=ἔτι), *á-tha then*, *therefore*, *át thereupon*, *then*, while the
114 preposition *ā*, which unquestionably belongs to the same stem, with its main meanings of *to*, *up to*, and as an adverb *hither*, *further*, takes an intermediate position. Perhaps the best representation of the meaning of the particle that is used as the augment is that it is equivalent to the ἔνθα with which the story of the Odyssey begins:

> ἔνθ' ἄλλοι μὲν πάντες ὅσοι φύγον αἰπὺν ὄλεθρον
> οἶκοι ἔσαν.

A reference is made to some point chosen at discretion; present time needs no such reference, and it was not till later that the need of denoting future time arose, and so this *there* became the *there* of past time. This view is only a shade different from Scherer's final explanation (p. 231).

In proceeding to examine the various phenomena connected with the augment, we will follow the old division, based on the nature of the subject-matter.

A) The Syllabic Augment.

In the dialect of the Vedas Kuhn (Beitr. iii. 463) points out that a long *a* sometimes takes the place of the short one. The cases, however, which are referred to by Delbrück (Verb. 79) as well, are few in number, and it may be doubted whether the length is inherent even in them, or whether it is due to a kind of 'position' effected by the following consonant. In Greek there are three verbs which occasionally take *η* instead of *ε* for augment: *μέλλω*, *δύναμαι*, *βούλομαι*. The ancients, whose notices of the phenomenon have been best collected by Fischer ad Wellerum, ii. 299, call the substitution of *η* for *ε* in these verbs an Atticism (Moeris s. v. *ἤμελλον*). Properly speaking, we can only be sure of the instances from the poets in which the metre testifies to the *η*, for the M.SS. of the prose writers vacillate much between the two forms. In this way we get the following result: *μέλλω* has *η* according to Zenodotus—though Aristarchus rejects his reading—at M 34, in Hesiod (Theog. 888 *ἀλλ' ὅτε δή ῥ' ἤμελλε θεὰν γλαυκώπιδ' Ἀθήνην τέξεσθαι*) by the side of *ἔμελλον* at other places (Rzach, p. 430), in Theognis (906 *ἤμελλ' ἐκτελέσας εἰς Ἀΐδαο περᾶν*), in Aristophanes (Eccl. 597 *τοῦτο γὰρ*

ἤμελλον ἐγὼ λέξειν, Ran. 1039 τὸν λόφον ἤμελλ' ἐπιθήσειν), δύναμαι in Aeschylus (Prom. 206 οὐκ ἠδυνήθην), and the comic poet Philippides Mein. iv. p. 472 ἔπειτα φυσᾶν δυστυχὴς οὐκ ἠδύνω. For ἠβούλετο only two instances from poetry are adduced, Eurip. Hel. 752 ὁ θεὸς οὐκ ἠβούλετο, and Alexis fr. 256 Mein. οὗ τὸ πρᾶγμ' ἠβούλετο, neither of which prove anything. Since then this phenomenon is unknown in Homer, where ἔμελλε and ἐβούλετο are often established by the metre, and since it is not till the Attic period that its gradual establishment begins, we must be careful how we call it a primitive growth. Anyway the explanation is hard to find. If we take the analogy of ἐθέλω, θέλω[3] it is only in the case of μέλλω that we get any help from the etymology of the word, which seems to have lost a σ before the μ (Principles, i. 412), and prothetic vowels are not unusual before double consonants. In the case of βούλομαι, where the β has come from a ϝ, we might appeal to the prothetic ε in ἐείκοσι for ἐϝείκοσι etc., and assume a by-form ἐβούλομαι, or we might even attribute the η to the lengthening power of the ϝ itself, which we find at work in ἠ-είδη (No. 15 below, Brugman Stud. iv. 166). The etymology of δύναμαι is not clear. 115

Of the *a*, the usual form of the augment in Sanskrit and Old-Persian, a few traces have been preserved in Greek. Whether such a trace is to be found on an inscription is not certain, for the right-to-left superscription on a helmet found at Olympia (C. I. G. no. 31)

ϘΟΙΟΣΜΑΠΟΕΣΕΦΥ . . .

may either be read μ' ἀπόησε with Ahrens (Aeol. 229), or μα πόησε with Boeckh. The latter reading with the augment missing assumes that the inscription is in poetry. But it is quite possible if we suppose the rhythm to be dactylic, especially if with Boeckh we take the first word to be Κῷος and the two last letters to be the beginning of a proper name. It is true that μά for μέ is unparalleled, but πάρ for περί is also known to us only through the one old Rhetra of the Eleans C. I. no. 11, and πατάρα for πατέρα only through the lately discovered Locrian inscription, and other peculiarities of the same isolated nature are being discovered every year. Hence this can only be said to be a possible and not a certain instance of *a* as an augment, and we have to go for further cases to the glosses of Hesychius ἄδειρεν· ἔδειρεν, ἄβραχεν· ἤχησεν, ἄσβεσθε· διέφθειρε Κρῆτες. The doubts expressed about these and the alternatives proposed for them seem to me of little weight, but it must be admitted that this lexicon has no claim to infallibility. ἄσβεσθε I take to be a preterite like ἔσχεθον, from the rt. σβες (σβέννυμι, ἄσβεστος), meaning *exstinxit*. 116

Forms with the syllabic augment are witnesses in many ways to the older initial of the verbal stems concerned. Cases of this kind fall into two main classes.

1) Double consonants following the augment.

It is well known that ρ is almost invariably doubled after the augment. This fact has long since been compared with the same phenomenon in compound nominal forms, and it is impossible not to see the parallel between ἔ-ρρεε and περί-ρρυτος, ἔρρηξα and ἄρρηκτος. Buttmann

[3] Cp. Buttmann, Ausf. Gr. i. 317.

(i. 84) thought the reason lay in the fact that an initial ρ was pronounced like a double consonant, and appealed in proof of this to the rough breathing written over it. Since, however, the same doubling which is the rule with ρ occurs sporadically in Homer in the case of other initial consonants as well, we are compelled here, as is now pretty generally admitted, to regard the doubling of consonants in the great majority of cases as an assimilation (Ahrens, Formenl. § 85; Hoffmann, Quaest. hom. i. 135). The verbs beginning with ρ are exhaustively discussed by Leo Meyer (Ztschr. xv, 1 ff.), where, however, he is supporting the, as I think, erroneous theory that in the case of verbs which can be shown to have once had ϝ before ρ, not only has Homer's language traces of this sound to show, but the sound itself. The assertion made by the same scholar (p. 3) that 'it is extremely improbable that the Homeric ϝ was ever assimilated to a following ρ,' appears to me altogether unfounded. In post-Homeric Greek the doubling of the ρ is undoubtedly to be explained in the way suggested above. It should be noticed that of the verbs which begin with ρ many can be shown to have lost a consonant,
117 i.e. either a ϝ or a σ. A ϝ is established by clear traces in ῥέζω (rt. ϝεργ Principles, i. 221), ῥέπω (ib. i. 437), rt. ῥε by the side of ἐρ, ϝερ (ib. i. 428), ῥήγνυμι (ib. ii. 159), ῥιγέω (ib. i. 438), ῥιζόω (ib. i. 438), ῥίπτω (i. 437); a σ in ῥέω (i. 439), ῥοφέω (i. 368), ῥώομαι, ῥωννυμι (i. 440). On the other hand, there is hardly one Greek root beginning with ρ whose representatives in the other languages begin with a simple *r* too. Roots which do begin with *r* in these languages generally correspond to Greek words in which a vowel is prefixed to the ρ: ἐρεύγω (cp. *ruc-tare* Princ. i. 222), ἔρημος (Skt. *ram* i. 404), ἐρεύθω (i. 312), ὀρέγω (i. 226), ὠρύω (*rumor* i. 444). Thus we see that the doubling of the ρ is of great antiquity. Compared with it the appearance of λλ, νν, μμ after the augment is an isolated phenomenon, which is to be explained partly in the same way, as due to the fact that the root once began with two consonants, e.g. in ἔννεον Φ 11 (Princ. i. 396), partly as due to a mistaken imitation of such forms made in the conventional spirit of Epic language. On the precedent of ἐλλίσσετο, ἐλλιτάνευε, which are perhaps correctly formed (Hoffm. Qu. hom. i. 145), writers ventured upon ἔλλαβε (Princ. ii. 145), ἔμμαθε (ib. i. 387), while Apollonius Rhodius ii. 1032 was the first to allow himself the use of ἔλλιπε. Much that relates to this subject has been treated by me at greater length in Stud. iv. 479 ff. Lastly, the double consonant is to be explained in a few instances to be due to an assimilation which has affected the consonant succeeding the initial, as in σείω (Princ. i. 465) and ἔδδεισεν (Stud. viii. 465, Princ. ii. 308 note).

2) Syllabic augment before a vowel.

When we find a syllabic augment before a vowel, apparently, that is, taking the place of the temporal augment, we may conclude that a consonant has fallen away, and that the consonant is one of those three spirants which Greek phonetic laws always condemned between vowels. Buttmann (i. 324) recognised this fact as far as the digamma was concerned, only he was obliged to leave a few cases doubtful, which we are now able to understand more clearly. The forms in question here can again be divided into two classes, according as the syllabic augment

is in each case present in its integrity or only felt in its results. To the forms with the syllabic augment intact we have a remarkable analogy in Old-Persian, i.e. *a-i-sta-tâ* (Spiegel, Altpers. 165), for **a-hi-sta-tâ* and still older **a-si-sta-tâ*, which would correspond to a Gk. **ἐ-ι-στα-το* for the regular *ἵ-στα-το*. We shall see below that where the initial was originally a vowel Old-Persian formed the augment in another way. 118

a) Syllabic augment intact before a vowel.

The following forms admit of a very simple explanation :—

1) *ἐ-άγ-ην* N 162 *ἐν καυλῷ ἐάγη δολιχὸν δόρυ* (P 607), Aristoph. Vesp. 1428 *καί πως κατεάγη τῆς κεφαλῆς μέγα σφόδρα*; *ἔαξε* H 270 *εἴσω δ' ἀσπίδ' ἔαξε βαλών*, Λ 175 *τῆς δ' ἐξ αὐχέν' ἔαξε λαβών* etc. by the side of *ἦξε τ* 539 *πᾶσι κατ' αὐχένας ἦξε καὶ ἔκτανεν* (Ψ 392). The *ϝ*, which is confirmed by the perf. *ἔᾶγα* (Aeol. *ϝέαγε*), is clearly established, especially by the Hesiodic *κανάξαις* (Opp. 666, 693). Princ. ii. 158, 188.

2) *ἐ-ύαδ-ο-ν*, where the *υ* arose from *ϝ* or a still earlier *σϝ*, *Ξ* 340 *ἐπεί νύ τοι εὖαδεν εὐνή*, P 647 *ἐπεί νύ τοι εὖαδεν οὕτως*, by the side of the perf. *ἔᾶδα* (*ἐᾱδότα* I 173). In the imperfect the form we should expect, *ἐάνδανε*, occurs in Herod. ix. 5, 19, though we find *ἤνδανε* A 24, 378, Σ 510 etc. (cp. *ἐπιήνδανε ν* 16 and elsewhere in the Odyssey), and also *ἐήνδανε* Ω 25, *γ* 143 to be discussed below). From the same verbal stem comes *ἐφ-έ-ασ-θεν· ἐγέλασαν, διεχύθησαν* Hesych. i.e. *ἐφήσθησαν*. The uncompounded *ἔασθεν* is conjectured by Mor. Schmidt with Pearson in the gloss *ἔαθεν· ἐχώρησαν*, which both scholars, with the alphabetical arrangement on their side, write *ἔασθεν· ἐχάρησαν*. For other traces of the *ϝ* see Princ. i. 282.

3) *ἐ-άλ-η-ν* N 408 *τῇ ὑπὸ πᾶς ἐάλη*, Υ 168 *δουρὶ βάλη, ἐάλη δὲ χαλκῷ*, 278 *Αἰνείας δ' ἐάλη*, corresponding to which we get Σ 447 *Τρῶες ἐπὶ πρύμνῃσιν ἐείλεον* and perfect forms like *ἐελμένοι* M 38. Clear proof of the *ϝ* is given by the Doric form *ἐγ-ϝηληθίωντι=ἐξειληθῶσι* on the Heraclean tables (Meister, Stud. iv. 404).

4) *ἐ-άλ-ωσ-ν* first found in Attic writers, e.g. Aristoph. Vesp. 355 *ὅτε Νάξος ἐάλω*, while at *χ* 230 we have *σῇ δ' ἥλω βουλῇ Πριάμου πόλις*, Herod. i. 78. The Lesbian *εὐάλωκα* given in the Anecd. Oxon. iii. 237 points to a *ϝ* (Ahrens, Aeol. 37), and on this is founded the etymological combination given in Princ. ii. 170, which connects *ἁλίσκομαι* with the above-mentioned rt. *ϝαλ*, *ϝελ*, which shows most clearly in *ἄλυσις*, chain, the notion of shutting up or fettering. 119

5) *ἐ-άνασσε* Alcaeus fr. 64 Be.[3] *καὶ πλείστοις ἐάνασσε λαοῖς*, where others less correctly write *ἐϝάνασσε*, for a *ϝ* in the middle of the word must have become *υ* in Lesbian. On the *ϝ* of the stem cf. Princ. ii. 182, Angermann, Stud. iii. 117.[4]

6) *ἔ-ειξε* Alcman fr. 31 Be.[3] *τῷ δὲ γυνὰ ταμία σφεᾶς ἔειξε χώρας*. The *ϝ* of *εἴκω* is established (Princ. i. 166).

7) *ἔ-ειπον, ἔειπες, ἔειπε* (*ἀπέειπε, με-έειπε, προσέειπε*), very frequent in Homer, e.g. E 683, I 173. The *ϝ* is clearly proved both by Aeolic forms and by the comparison of the related languages. Princ. ii. 57.[5]

[4] *Ἐαρδάλη· ἐπλησίασεν* Hesych. cp. *βαρδῆν· τὸ βιάζεσθαι γυναῖκας Ἀμπρακιῶται* (cp. Mor. Schmidt s. v.) is too uncertain to be brought into the list.

[5] *Ἔεργον* and the cognate forms I omit, because the present *ἐέργω* (*ἐεργόμενοι* N 525) shows the initial *ε* to be prothetic.

8) *ἐ-έσσατο* or *ἐ-έσσατο* only ξ 295 *ἐς Λιβύην μ' ἐπὶ νηὸς ἔέσσατο ποντοπόροιο*, where the scholia give *ἐφέσσατο* as the reading of Rhianus and *ἐφείσατο* as that of Zenodotus. The M.SS. according to La Roche seem all to point to the simple verb. As *καθεῖσε* often occurs in Homer, e.g. Ξ 204, *ἔέσσατο* need not surprise us, related to it as *ἔαξε* to *ἦξε*. The *σ* of the rt. *ἐδ* is beyond a doubt Princ. i. 297. Cp. Mayhoff de Rhiani Studiis Homericis (Dresden, 1870), p. 36

9) *ἐ-έσσατο* from the rt. *ϝες* (*ἔννυμι*) K 23 *ἀμφὶ δ' ἔπειτα δαφοινὸν ἔέσσατο δέρμα λέοντος* (=K 177), ξ 529, *ἀμφὶ δὲ χλαῖναν ἔέσσατ' ἀλεξάνεμον*, by the side of *ἀμφιέσασα*, *ἐπιέσασθαι*, the latter found even in Xenophon, *ἐπιειμένος*, plupf. *ἕεστο* M 464. The *ϝ* of the root is as certain as any. Princ. i. 470.

10) *ἐ-είσαο* from the rt. *ϝιδ*, where the *ϝ* (Princ. i. 299) needs no confirmation: I 645 *πάντα τί μοι κατὰ θυμὸν ἐείσαο μυθήσασθαι, ἐείσατο* ε 398 *ὣς Ὀδυσεῖ ἀσπαστὸν ἐείσατο γαῖα καὶ ὕλη*, while in *εἶδον* the augment is obliterated by contraction with the stem.

11) *ἔ-ηκε* from the rt. *ἑ* originally it seems *je, ja* (Princ. i. 500), A 8 *τίς τ' ἄρ σφωε θεῶν ἔριδι ξυνέηκε μάχεσθαι*, A 48 *μετὰ δ' ἰὸν ἔηκε*, M 221 *ἀφάρ δ' ἀφέηκε*.

120 12) *ἐ-ούρησε*. *ἐνεούρησε* is pronounced to be Attic in Cramer's Anecdota Oxon. i. 446, 17, and supported by a quotation from Eupolis Autolycus (Meineke, Comici, ii. p. 444): *ἆρα σφόδρ' ἐνεούρησεν ἐξώλης γέρων*; Hence in Demosthenes 54 too, four good manuscripts have *προσεούρουν*. A corresponding formation is the perfect-form *ἐν-ε-ουρηκότας* Aristoph. Lys. 402. The etymological connexion with Skt. *vâri* water and the Lat. *ûr-îna* is discussed Princ. i. 436; it is clear therefore that this verb too had once a *ϝ* after the augment. Only we ought probably to follow Ebel here (Ztschr. iv. 166) in starting from *ἐ-ϝορ-ησε*, in which the *ϝο* as in *οὐρ-αν-ός* for the original *var-ana-s* (Princ. ii. 209), was transformed to *ου*. The *ε* held its place even after this transformation, in the same way as did the *ἀ* in *ἀϋτμήν* for *ἀϝε-τ-μήν*.

13) *ἐ-ώθουν* hymn. in Mercur. 305 *χερσὶν ἐώθει, ἔ-ωσα* Π 410 *κὰδ δ' ἄρ' ἐπὶ στόμ' ἔωσε*, ι 181 *καὶ Βορέης ἀπέωσε* (but *ἀπῶσε* P 649 and elsewhere), frequent in Attic: Aristoph. Pax 637 *τήνδε μὲν δικροῖς ἐώθουν τὴν θεὸν κεκράγμασιν, ἔωσα, ἐωσάμην, ἐώσθην* with the corresponding perfect *ἔωσμαι*, later *ἔωκα* as well. The comparison of the Skt. *vadh* ferire (Princ. i. 323) establishes the digamma. Ebel sees here too only the effect of this spirant—*vadh* becoming *ὠθ*. And we actually find in *ἐννοσίγαιος* and *εἰνοσίφυλλος* traces of an assimilated *ϝ*, so that we are entitled to give *ϝωθ* as the root, while we may at any rate attribute the lengthening of *ο* to *ω* to the operation of the gradually retiring spirant (Brugman, Stud. iv. 174).

14) *ἐ-ωνούμην* first to be found in Attic: Eupolis Maricas fr. 15 (Meineke, ii. p. 505) *κοὐων γε μὴν αὐτὰς ἐωνούμην ἐγώ*. The perfect *ἐώνημαι* belongs to the same period. In the stem *ὠνο* the length of the *ω* seems to have nothing to do with the disappearance of the digamma, for corresponding to it we find the Skt. *vasnâ* and the Lat. *vêno* also with a long vowel. We must look for the source of this lengthening to the lost *s*, and so regard *ϝωνο* as the stem (cp. *ὦμο-ς* = *ὀμσο-ς*), Princ. i. 400.

15) In *ἠείδης* X 280 *ἐκ Διὸς ἠείδης τὸν ἐμὸν μόρον*, ι 206 *οὐδέ τις αὐτὸν | ἠείδη δμώων* we have a second instance of what is apparently *η* for

ε before a vowel. There can be no doubt here as to the rt. *ϝιδ*. We should therefore expect *ἐϝείδης, ἐείδης*. As in *τοκῆος* the disappearing *ϝ* 121
has produced a prolongation of the preceding vowel. The similar *ἵκτο* will be dealt with when we come to the perfect.

The following forms stand by themselves :—

16) *ἤειρε* belonging to *εἴρω* K 499 *σὺν δ' ἤειρεν ἰμᾶσι καὶ ἐξήλαυνεν ὁμίλου*. The perfect *ἐερμένος* σ 296 and *ἔερτο· ἐκρήμνα* (Hesych.) prove that a consonant has been lost. But the etymology of the word tells us of the loss of two consonants (Princ. i. 441). We may take the root to be *σϝερ*, which in Latin became *ser* (*sero*), and has preserved its sibilant in *σειρά*, while after a vowel most probably *σ* first assimilated itself to the *ϝ*, and then the fuller sound of the *ϝ* effected the lengthening of *ε* to *η*.

17) *ἐώρων*, not found till the Attic period (Herod. *ὥρων*), by the side of *ἑώρακα* (*ἑόρακα*), *ἐώραμαι*.

18) *ἐφνοχόει* Δ 3 *νέκταρ ἐφνοχόει*, υ 255 *καλοῖς ἐν κανέοισιν ἐφνοχόει δὲ Μελανθεύς*, but the form without an *ε* occurs also, and it was written by Aristarchus with *ο* (*οἰνοχόει* A 598), by others *ᾠνοχόει* (La Roche, Homer. Textkritik, p. 324).

19) *ἀνέῳγον* Π 221 *χηλοῦ δ' ἄπο πῶμ' ἀνέῳγεν*, Ω 228 *ἦ καὶ φωριαμῶν ἐπιθήματα κάλ' ἀνέῳγεν, ἀιέρξε* κ 389 *θύρας δ' ἀνέῳξε συφειοῦ* (Herod. *ἀνοῖξε*) to be compared with Ω 455 *τρεῖς δ' ἀναοίγεσκον μεγάλην κληῖδα θυράων*, with the Attic perf. *ἀνέῳγε, ἀνέῳκται, ἀνεῴχθην*, but the word is a trisyllable at Ξ 168 *τὴν δ' οὐ θεὸς ἄλλος ἀιῷγεν* (like *ᾠνοχόει*), more correctly *ἄνοιγεν*.

The peculiarity of the last three verbs is that after the syllabic augment there seems to be the temporal as well. The digamma is again clearly the cause of the lengthening. When it fell out the following vowel was prolonged, as in *βασιλέως* for *βασιλεϝ-ος*. The nature of these vowels has been discussed by Ebel in the essay often referred to above. Whether the spirant had from the first the power of lengthening the preceding or the following vowel indifferently is a difficult question, to which Ebel's essay does not seem to me to have given a satisfactory answer. I am not sure that, as *τοκῆος, πόληος, νηός, ἦος* are of earlier occurrence than *τοκέως, πόλεως, νεῶς, ἕως*, it was not the general rule that the backward influence of the spirant was the first step, while a somewhat later period reversed the relation of the long and short vowel. The Attic *ἐώρταζον* can hardly be explained in any other way than by sup- 122
posing it to come from *ἠόρταζον* (cp. Buttmann, i. 326) ; *ἐώλπειν* (*φ* 96) and *ἐᾴκειν* (Ξ 174) owe their *ω*, as is shown by *ἔοικα*, to the augment, that is, *ηο* became *εω*, while the reverse of this process in the Homeric *ἐήνδανε* which the metre proves to have four syllables at Ω 25 and *γ* 143, and which we must assume to have come by metathesis of quantity from *ἠάνδανε* (cp. *ἤειρε*), is not so easy to understand. In any case the form is peculiar, for the analogy of *τοκέᾱ* would lead us to expect *ᾱ* and not *η* in the second syllable. May not the *η* owe its existence to a mistaken doctrine of *πλεονασμός*? The form *ἐώργει*, ξ 289 *τρώκτης ὃς δὴ πολλὰ κάκ' ἀνθρώπους ἐώργει*, is very singular indeed. I. Bekker here reads *εἰώργει* (cp. *εἰώθει*), while La Roche in the face of the M.SS., reads *ἀνθρώποισιν ἐώργει*. The length of the first syllable might be explained to be the result of **ἐ-ϝ-ϝόργει *ἐε-όργει*, but there would then be no reason to be seen why the *ο* which is short in *ἔοργα* should be long here, and we should have to write *εἰώργει*. Brugman

(Stud. iv. 167) defends the reading ἐώργει by supposing that from the primary *ἐ-ϝε-ϝόργει there came first, by the influence of the disappearing ϝ (cp. ἠ-είδη), *ἠ-ε-ϝόργει, then *ἠ-όργει. The latter form he conjectures to be the true reading at ξ 289, ἠ-όργει having become ἐ-ώργει by metathesis of quantity. In the case of forms found in Homer it is well to remember that in the old writing there was no difference between *o* and *ω*, *οι* and *ῳ*, and that in consequence the authority for the latter is always extremely small. In any case it is worth notice that the New-Ionic dialect has a decided dislike to these forms with an *ω*. Whatever may be the case as to the successive stages of these apparently anomalous phenomena, of this we may be sure, that the augment points in all instances to the loss of a spirant.

20) Another form of a peculiar nature is the Homeric ἐάφθη, the origin of which is a much debated question.[6] It occurs but twice: N 543:

ἐκλίνθη δ' ἑτέρωσε κάρη, ἐπὶ δ' ἀσπὶς ἐάφθη
καὶ κόρυς· ἀμφὶ δέ οἱ θάνατος χύτο θυμοραϊστής,

123 and Ξ 419:

χειρὸς δ' ἔκβαλεν ἔγχος, ἐπ' αὐτῷ δ' ἀσπὶς ἐάφθη
καὶ κόρυς· ἀμφὶ δέ οἱ βράχε τεύχεα ποικίλα χάλκῳ.

Aristarchus wrote ἐάφθη with the spiritus asper, and interpreted it, as Herodian tells us in a note on the former passage, by ἐπηκολούθησεν, and consequently derived the form from ἕπεσθαι. Herodian (ed. Lentz, ii. 309) followed Tyrannio in regarding ἅπτεσθαι as the etymon, and interpreting it *οἱονεὶ συνήφθη*. Both views have found supporters among modern scholars. Buttmann, in the Lexilogus, ii. 138, took the side of Aristarchus; Spitzner, in the 24th excursus on the Iliad (vol. i. sect. iv. p. xvii), followed the other two grammarians; and since Buttmann in his Ausf. Gram. ii. 117 forsook the side he first embraced, the latter view has become the prevailing one. Buttmann was quite alive, however, to the difficulties in the way of the derivation from ἅπτω. First and foremost among these he placed the irregularity of the augment as compared with ἧπτετο, ἐφῆπται. The rt. of ἅπτω, ἀφ, is probably to be connected with the Latin *ap-iscor*, *ap-tu-s*, *ap-ex*. If we except ἄαπτος, to which we shall return, it shows no trace of a consonantal initial. Spitzner, it is true, is able to set this objection aside at p. xxiv in a characteristically superficial way; simply saying that the littera incertissima, as he calls the ϝ, never means much any way. As to the sense of the passage, Buttmann was undoubtedly right in the Lexilogus in translating it 'and the shield fell on to him,' which exactly suits the context. Heyne's interpretation, adopted by Spitzner, 'and the shield stuck to him,' is quite wrong. In the first place, the aorist ἐπ'-άφθη can never mean the same thing as the pluperfect ἐφῆπτο. Since it denotes the commencement of an action, ἐπὶ—ἐάφθη, if it did belong to ἐφάπτεσθαι, could only mean 'fastened itself.' This is how Tyrannio and Herodian take the word: *οἱονεὶ συνήφθη αὐτῷ*. They appear to have taken this *συνήφθη* in the sense 'bound itself, united itself to,' not a very apt meaning, it seems to me. What connexion was established

[6] I have treated this form at greater length in the *Commentatio de Forma Homerica* ἐάφθη that is prefaced to the list of the doctors created in the philosophical faculty of Leipzig in 1869–70.

between the head and the shield that fell on it? Then the whole idea, especially in the first passage, 'he bent his head, to which the shield and helmet stuck fast,' does not seem natural, and this is why Buttmann, on returning in his Ausf. Gram. to ἅπτομαι, preferred to see 124
in this verb the meaning '*inflicta est*,' 'struck him,' a meaning, however, which cannot be extracted from it. The discussion then stands, I take it, as follows: in favour of Aristarchus's derivation from ἕπομαι there is first the context, secondly the augment, which can be explained, though not by *f*, still, as Buttmann saw, by the σ which is to be seen in ἔ-σπε-το, σπέσθαι, as in the Lat. *sequi*, while all that makes for the derivation from ἅπτομαι is perhaps the α and the common aorist form ἥφθη. Both points certainly give rise to some difficulty. Still for the α in the face of an ε everywhere else we can adduce the Homeric ἐτάρφθην (I. Bekker on ε 74) by the side of τέρπομαι, and τραφθῆναι (ο 80) by the side of τρέπω, while Homer has στρεφθέ τε (Ε 575) where Herodotus has an α (κατεστράφθησαν I 130). And from ἕπω Herodotus has, though in a passive sense, περιέφθην v. 81. And might not ἄαπτος itself, for which some wonderful derivations have been devised, possibly mean, not 'not to be touched,' but 'unsociable, unapproachable, *intractabilis*'? For ἕπειν means *tractare*, to deal with a thing, μεθέπειν (α 175) '*versari*, be present' (Princ. ii. 58). We should then have a parallel for the ἀ in ἐάφθη, and a reason for the absence of the ν in ἄαπτος. If our conclusions are correct, the apparent irregularity of the augment too in the case of ἐάφθη is satisfactorily explained.

21) ἐείσατο belonging to εἶμι, Ο 415 ἀντ' Αἴαντος ἐείσατο, 544 τὼ μὲν ἐεισάσθην cp. χ 89, we must, it is true, admit to be an anomaly, as there is no hint of a consonantal initial here. But then it stands alone as such. At Princ. ii. 207 this form is discussed, and attention is called to similar mistaken formations in Homer.

b) Syllabic augment discernible in a contraction.

The old grammarians seem to have regarded the ει, which a number of verbs show in the stem-syllable instead of the η which was to be expected, as hardly an anomaly, but only as a not very unnatural variation. In the scholion above referred to on N 543 Tyrannio says ἀδιαφόρως τὰ 125
ἀπὸ τοῦ ε̄ ἀρχόμενα ῥήματα εἴωθε κλίνεσθαι καὶ διὰ τῆς εῑ διφθόγγου κατ' ἀρχὴν καὶ διὰ τοῦ η̄. Buttmann (ii. 323), who derives the temporal augment from the contraction of the ε with the initial vowel of the stem, was consistent in regarding ει as the earliest form of the augment, but he does not tell us why in other cases η took its place. No explanation whatever was given of the fact that the Greeks said εἶχον but ἤθελον. It was from Comparative Grammar that the first help came here. Pott. Et. F. ii.[1] 71 gave a few suggestions. The first, as far as I know, to give clear expression to the correct principle, was Savelsberg in his doctoral dissertation 'Quaestiones lexicales de radicibus Graecis' Berol. 1841, where, at p. 7, after an examination of the several forms, he puts it as follows: 'ε augmentum in istis exemplis omnibus, ubi cum ε prima radicis vocali in ει contrahitur, vere est syllabicum, cum ejusmodi contractioni eae tantum radices sint obnoxiae, quae aut σ literam aut digamma in initio amiserunt.' Savelsberg only omitted the third spirant *j*. This was the very view which I afterwards established in my Tempora

und Modi, p. 136 ff., as did Ahrens Formenlehre, § 83, Ebel Ztschr. iv. 167 ff. Now, I suppose, no one doubts it. Kühner at p. 498 of the new edition of his Ausf. Gr. mentions it as self-evident. It can, in fact, be hardly accidental, that of the fifteen verbs with ει in the augment-syllable twelve show unmistakable traces of having originally had a consonant at the beginning of their stem. In strict Doric the difference between the augment in ει and that in η was unknown, because here εε regularly contracted to η, and they said ἦχον, ἦλκον as well as ἤσθιον, ἤθελον (Ahrens, Dor. 202). The several forms are as follow :

1) εἴασα, εἶων. Both forms are Homeric (Ω 684, Σ 448), and are joined later by εἰάθην; the perfect-forms εἴακα, εἴαμαι also show the diphthong in the reduplication-syllable. The Homeric present-forms εἰῶ Δ 55 by the side of ἐῶ Θ 428, εἰῶσ' Β 132 by the side of ἐῶσι δ 805 (οὐδὲ ἐῶσι),[7] the conj. εἰῶμεν φ 260, the form ἔβασον (=ἔασον) said to be Syracusan and Laconic, for which Gregorius Corinth. 354 also
126 writes εὔασον, as also εὔα = ἔα (Ahrens, Dor. 49), point to the loss of one or more spirants after the ε, so that the diphthong would seem to be the result of a compensatory lengthening. This consideration has, it is true, not led as yet to a certain etymology. Ebel's (Ztschr. iv. 169) derivation of ἐάω from ἐϝς seems to me improbable as far as meaning goes, Kraushaar's attempt (Studien, ii. 430 ff.) to connect it with the rt. *as* throw, from which come *s-ino* and—as is pointed out by Bugge, Fleckeisen's Jahrb. 1872, p. 95—the Old-Latin *de-sivare* (desinere Paul. Ep. 72), must be admitted to be acutely reasoned out, but his proof assumes too many unauthenticated steps to be convincing. If, as we must suppose, the ει is the result of a compensatory lengthening, it is accidental that Attic Greek kept the diphthong only in the augmented forms, and there was formed, at a time when, as in Homer, εἰάω and ἐάω existed side by side, the somewhat arbitrary rule of saying εἴων but ἐάω, which appeared to bear to each other the same relation as εἶχον and ἔχω. Strictly speaking, therefore, we have here to deal with no augment-syllable at all (cp. Kühner, Ausf. Gr. i.[2] 499).

2) εἶδον, ordinary Greek along with ἴδω, ἴδοιμι, ἰδεῖν etc., is one of the clearest cases, for no one will doubt in the face of the proofs of a ϝ in this root that it stands for ἐ-ϝιδο-ν (Princ. i. 299). The form with a vocalised ϝ (cp. εὔαδον) εὔιδον occurs in the poem of Balbilla, C. I. Gr. 4725, l. 10 (Ahrens, Dor. 578)—

Βαλβίλλα δὴ κάμεν οἷσι πόνοις
γρόππατα σαμαίνοντά τ' ὄσ' εὔιδε κὤσσ' ἐσάκουσε.

These verses were written A.D. 150. But Bergk (Lyr.[3] p. 879) is in all probability right in reading also in fr. 2, 7 of Sappho—

ὡς γὰρ εὔιδον βροχέως σε,

and Nauck is perhaps right in conjecturing (Mélanges Gréco-Romains, Bulletin de l'ac. de St. Pétersb. 1863, p. 409) that in several instances where we now read ἴϛιδε in Homer the original reading of the text was εὔδε (e.g. Ξ 13, Σ 235). The expulsion of the ϝ and the contraction of ἔϊδον in the Homeric poems is, however, in some places established by the metre : λ 162 οὐδ' εἶδες ἐνὶ μεγάροισι γυναῖκα, Λ 112 εἶδε, ὅτ' ἐξ Ἴδης, while ἔϊδον or ἐϝιδον is often possible. Bekker's ϝεῖδον is, as Nauck saw, indefensible.

[7] The awkward hiatus is here and elsewhere got rid of if we read εἰῶσι and the like.

3) εἴθιζον, εἴθισα, εἰθίσθην first found in the Attic period—though 127
there is a certain variation between ει and η in the instances preserved—
to which may be added εἴθικα and εἴθισμαι, once had a ϝ in its stem, as is
shown most conclusively by the Aeolic perfect ἐνέθωκα· ἔωθα (Hesych.).
This form points to ϝεθόω, a by-form of ϝεθίζω, which without its ϝ was
known also to the Dorians (ἔθωκα, ἤθωκα, Ahr. 340). In very early times
there was a σ before the ϝ, so that we get a root σϝεθ whose initial double
consonant moreover gives the best explanation of εἴωθα (Princ. i. 311).

4) εἴλισσον. The only testimony of Homer to this is doubtful, as
the reading at M 49 varied even in antiquity (cp. Schol. A.) between—

ὡς Ἕκτωρ ἀν' ὅμιλον ἰὼν εἰλίσσεθ' ἑταίρους
τάφρον ἐποτρύνων διαβαινέμεν

and ἐλλίσσεθ', which is now the general reading. In the Attic period
are found εἴλιξα, εἰλίχθην, and εἰλιγμένος is found as early as Hesiod,
Th. 791. The diphthong occurs also, it is true, in the unaugmented forms
in Herodotus (ii. 38), in the tragedians, in Plato and elsewhere, and
also in the undoubtedly related εἴλλω or εἴλλω. We must here probably
regard a prothetic ε as the source of the diphthong. No one can doubt
the connexion of these forms with the Lat. *volv-o*, by which the digamma
is established (Princ. i. 447).

5) εἷλκον, unknown in the Iliad and Odyssey, where the only form is
ἕλκον, first occurs in the hymn. in Cerer. 308, then in Herod. (i. 31 and
elsewhere), and is common in Attic writers, from Sophocles (O. C. 927)
onward, as too the aorists εἵλκυσα, εἱλκύσθην, εἱλκυσάμην, to which are
to be added the perfects εἵλκυκα, εἵλκυσμαι. With these forms ἥλκησε,
which is given by good M.SS. at λ 580, is in strange contradiction. But
La Roche is no doubt right in reading ἕλκησε, which he conjectures to
have been the reading of Aristarchus. Not much weight, it is true,
attaches to the lengthening of the previous γὰρ: Λητὼ γὰρ ἕλκησε, as a
trace of the ϝ, as ἕλκειν shows no similar traces anywhere else. But the
witness of the related languages to this initial—in Lithuanian (*velkù*
I draw) and Slavonic—is distinct, and αὖλαξ=ἀ-ϝλαξ confirms it (Princ.
i. 167).

6) εἷλον, εἱλόμην, common in Homer, e.g. Γ 35 ὣχρός τέ μιν εἷλε 128
παρειάς, Δ 406, ἡμεῖς καὶ Θήβης ἕδος εἵλομεν ἑπταπύλοιο, Λ 697 εἵλετο,
and in ordinary Greek from that time onwards. The traces of a ϝ in
this stem are not very numerous. See Princ. ii. 180.

7) ἦ-μεν, ἦ-τε, ἦ-σαν, ἧ-μην, εἵ-θη-ν from the rt. ἑ (ἵημι). In Homer
these forms have no augment—ἕμεν, ἕσαν &c.—except at Ω 720 παρὰ δ'
εἶσαν ἀοιδούς, and at Ψ 868 παρείθη. From Herodotus onward (vii.
122 ὁ στρατὸς ἀπείθη ὑπὸ Ξέρξεω) the augmented forms are in common
use: ἀν-εῖ-μεν Aristoph. Vesp. 574, ἀφεῖσαν Thuc. vii. 53. ἐφ-εῖ-το Soph.
Phil. 619. We have already seen a trace of an initial consonant here
in the form ἔ-η-κε discussed on p. 80. We have the same thing in the
perf. εἶ-κα, εἶ-μαι. The difference between ἧκα and εἶ-μεν is easily ex-
plained by supposing that the former was contracted from ἔηκα as ἥλων
from ἐάλων, ἧξε from ἔαξε. The η is not due to the augment, but, like
that in ἔ-θη-κα, is part of the formation of this anomalous aorist. There
is nothing, therefore, to contradict the derivation of the verb given above
from the rt. *ja*.

8) εἶπον, εἰπόμην Λ 706 ἡμεῖς μὲν τὰ ἕκαστα διείπομεν, Γ 447 ἅμα δ'

εἶπετ' ἄκοιτις, E 591 Τρώων εἵποντο φάλαγγες. The middle occurs in ordinary Greek; and the origin of the ει is made as clear as can be by ἑ-σπό-μην, i.e. σε-σεπ-ό-μην, which gives us a rt. σεπ=Lat. *sequ* in *sequ-or*. It is hardly necessary to refer to Princ. ii. 57.

9) εἰργαζόμην, εἰργασάμην, εἰργάσθην. The Homeric poems contain no certain instance of the ει, for though at γ 435 the M.SS. have οἵσιν τε χρυσὸν εἰργάζετο, the extraordinary lengthening of the *-ον* points, not to Bekker's *Ϝειργάζετο*, which is impossible, but to *Ϝεργάζετο*, and this is borne out by the reading adopted at ω 210: τοί οἱ φίλα ἐργάζοντο. But Hesiod Opp. 151 has εἰργάζοντο. In Herodotus's dialect εἰργάζετο and the like (Bredow, 301) are unknown, but the unaugmented form is extremely frequent. Among the Attic writers again the ει is very common, though in later times η sometimes takes its place. (Hager de Graecitate Hyperidea, Stud. iii. 105, Wecklein Curae epigraphicae, 36.) The ει is clearly due to the *Ϝ* of the rt. *Ϝεργ* (Princ. i. 221).

10) εἶρπον μ 395 as a 3rd pl., with this exception not earlier than
129 the tragedians; the comic poets also use the aor. εἵρπυσα. The ει is due to the σ, with which the word originally began, and which the Lat. *serpo* shows intact (Princ. i. 329).

11) ἔρυσα. As we shall see later, the stems *Ϝερυ(ι)* draw, and *Ϝερυ* guard, are to be carefully distinguished from each other. To *Ϝερυ(ϙ)* draw belong εἵρῦσαν Θ 226, εἵρῦσε β 389, εἰρυσάμην κ 165. The traces of a *Ϝ* are pointed out by Hoffmann, Quaest. homer. ii 49; probably the Lat. *verro* (for *vers-o*) is related. [But cp. Corssen Beitr. p. 403.] The appearance of an ει in unaugmented forms, e.g. in εἰρύμεναι Hes. Opp. 818, εἵρυσον Soph. Trach. 1034, is to be explained in precisely the same way as in the case of ἑλίσσω (No. 4). In Attic prose ἐρύω is unknown.

12) εἷσα, Δ 392 πυκινὸν λόχον εἷσαν ἄγοντες, θ 472 εἷσε δ' ἄρ' αὐτὸν μέσσῳ δαιτυμόνων, cp. Hesiod. Theog. 174, and then in Herodotus and the tragedians, who also recognise the middle εἵσατο (ἐγκαθείσατο, Eurip. Hippol. 31). The diphthong is to be explained as due to the original σ of the root σεδ, ἑδ, from which too came the form ἑέσσατο, discussed on p. 80. The strange thing is that it appears in forms that have not the force of a past tense, in Homer only at η 163 εἷσον ἀναστήσας (by the side of ἕσας, ἕσσαι), then in Herodotus (iii. 126 ὑπείσας, i. 66 εἰσάμενοι). At Thuc. iii. 58 Bekker and Classen follow good M.SS. in reading ἑσσαμένων. The ει must have been due here to a confusion, aided apparently by the related ἵζω, ἷσα, κάθισα, καθισάμενος (Cobet, Variae lect. p. 88).

13) εἱστήκειν, the Attic form of the pluperfect as contrasted with ἑστήκειν, which is the only form in Homer and Herodotus, is found first at Hes. Scut. 269 εἱστήκει, at Eurip. Herc. fur. 925, and constantly in prose. Its origin from ἐ-σε-στηκ-ει-ν explains the diphthong (Wecklein, Curae epigraphicae, 36).

14) εἱστίων, εἱστίασα, εἱστιάθην by the side of the perf. εἱστίαμαι not found before the time of Attic prose, but occurring there constantly (Lys. 19, 27, Xen. Cyr. i. 3, 10), is explained by the fact that ἑστία belongs to the same root as the Lat. *Vesta* (Princ. i. 496). Traces of the *Ϝ* are to be seen in Doric, but not in Homer (Ahr. 55).

15) εἶχον, εἰχόμην need no reference to special passages, as they are universal from Homer (Γ 123 etc.) onwards. The forms ἔ-σχο-ν, σχή-σω, ἕξω etc. show clearly that the root is σεχ, and consequently that εἶχον stands for ἔ-σεχ-ο-ν (Princ. i. 237).

A review of all these forms shows us this result. In seven verbs the 130
loss of a *ϝ* is demonstrable, in five that of *σ*, in one (*εἶμεν* etc.) the evident loss of a spirant, probably of a *j*. In *εἶλον*, as we saw, the loss of a spirant is not clearly established, in *εἴων* the *ει* is not really due to the augment, and in no single case can it be established that the root originally began with a vowel. If we reckon these fourteen cases (including *εἶλον*, along with the twenty-one cases treated under a), in which the syllabic augment remains intact, we obtain a total of thirty-five cases, in which the augment has something to tell us about an original consonantal initial, and this is a circumstance not to be overlooked in considering, as we shall have presently to do, the question of the persistency of this element of inflexion.

B) The Temporal Augment.

Buttmann was able to see that the temporal augment was originally identical with the syllabic, but he did not state the fact correctly when he said, at p. 323 of vol. i. of his Ausf. Gr. : 'From all that has gone before it is clear that the Augmentum temporale is nothing else than the Augmentum syllabicum *ἐ* that has been contracted with the initial vowel of the verb, e. g. *ἄγω ἔ-αγον ἦγον*; and it thus appears that the augment of the verbs in Text 3 is the original form : *ἔχω, ἔ-εχον, εἶχον*, while in the rest of the cases of amplification contained in this paragraph this original contraction has been replaced by a simple lengthening of the main vowel.' This change of procedure would be inconceivable in the case of the large number of verbs beginning with *α* in Doric, and of those beginning with *ε* and *ο* in Ionic. For *ἔ-αγον*, for instance, the only possible contraction in Doric would be *ἦγον*, like *κρῆς* for *κρέας*, while what we actually find is *ἆγον, ἀρχόμαν, ἀνάγγειλαν, ἀξίουν* (cf. the Lesbian *συνάγαγε*, the Arcad. *ὑπᾶρχε*, the Cypr. *ἄνωγον*, Ahrens, 129); and in Ionic *ἐ-εσαν* could only produce *εἶσαν, ἐ-ορ-το οὖρτο*.

The temporal augment therefore points undeniably by its form to an older linguistic period in which the augment had not yet turned to *e* but was still *a*. As to the period at which the rules which hold for Greek were settled there are two possibilities; either this happened on 131
Greek soil at a time when the augment was still *ȧ*, while the stem-syllable had already got the vowel which was the prevailing one at a later time. On this hypothesis the augment in the case of a verb beginning with *α* would be explained by the following steps :

ἄ-αγον *ᾱ̆γον* Ion. *ἦγον*

but not in that of verbs in *ε* and *ο*; for though in Ionic *ȧ-ορ-το* might give *ὦρτο*, in strict Doric it would give *ᾶρτο*, as *βοάοντι* gives the Dor. *βοᾶντι* (Ahrens, 197), while **ἄ-εσαν* would give **ἆσαν* in Ionic, as *ἄ-εθλον* gives *ἆθλον*. But we have at least one clear example to prove that *ο* was actually augmented to *ω* in strict Doric, i.e. the form *ὤμοσα* (Ahr. 350) attested by several inscriptions. It thus appears that the augmented syllable in all the three forms of the original *α* (i.e. *α, ε*, and *ο*) shows the long vowel corresponding to the short vowel of the root, and this rule admits of only one explanation, but that is a complete one. It is that the augment grew one with the initial vowel of the stem at a

time previous to the differentiation of *a*, *e*, and *o*. If the Greeks inherited from a pre-Greek time

* *agāmi*	* *āgam*
* *asanti*	* *āsant*
* *arnutai*	* *ārta*

we can understand how, as the *a* gradually split up, the sense of the connexion between the present and the preterite forms must have led them to choose for both tenses the same vowel, differing only in quantity, and to form the past tense thus :

Dor. ἄγω	ἆγον
ἐ(σ)αντι, ἔᾱσι	ἦσαν (so too the Arcad. ἦς = ἦν)
ὄρνυται	ὦρτο.

The *η* shown by Ionic in the place of *α* is evidently of late origin, and reminds us of the way in which in the nouns the uniformity of the *α*-declension is marred by the way in which the Ionians sometimes put an *η* into the place of an *α* : δίκη δίκης &c. δίκη and ἦγον stand on precisely the same footing as regards their *η*. The fact that we can definitely fix the order in time of these phenomena gives them a special value.

It is not so easy to find an explanation of the augment in verbs be-
132 ginning with *ι* or *υ*. Here Greek is considerably at variance with the Indian languages in its method of formation. In Sanskrit the addition of the augment turns *i* or *ī* into *āi*, and *u* or *ū* into *āu* :

iKkhá-ti, he wishes	imperf. *áikkha-t.*
ukshá-ti, he sprinkles	,, *áuksha-t.*

This method of formation is represented in Greek by a single example, which has hitherto not been considered relevant,[8] the imperfect of εἶμι ἤια or ἦα. In the singular, it is true, the *η* might be explained in a different way ; *ηι* might have come by the temporal augment from *ει*, so that ἤιε would bear to εἶσι the same relation as the unusual Attic ἠκάζον to εἰκάζω. But this explanation, which is given e.g. by Ahrens on the conj. in *μι* p. 25, and by Kühner, Ausf. Gr. i^2. 662, does not hold for the dual and plural. For it is shown by ἴμεν, ἴτον, ἴασι, that the diphthong belongs to the singular only, and hence from the analogous φημί, φαμέν, we get in the imperf. sing. ἔφη-ν, ἔφη-ς, but plur. ἔφαμεν, ἔφατον. A form ἦσαν differing only by its *η* from *εἶσαν would be just as anomalous as ἔφησαν, and hence Ahrens (ut supra) is compelled to recognise 'an unorganic degeneration of sound' (*Ablaut*). The trisyllabic ἤισαν would not be touched at all by this explanation. That the *η* really has the force of an augment is clearly shown by

ἦΐσαν or ἦσαν by the side of ἴσαν

the former of which occurs K 197, N. 305, while the latter is very common ; e.g. A 494 ἐπῆσαν, τ 445. The shorter form bears to the longer exactly the relation of ἔσαν to ἦσαν. *εἶσαν and the like, which Ahrens's view would lead us to expect, is unheard of, unless appeal is made to Hesychius's

[8] Adalb. Kuhn, *De conjugatione in -μι*, p. 48, notices the agreement between the Greek and Sanskrit form, but obscures the insight thus gained into its nature by comparing ἤδειν and the like, where the *η* is due to the Ϝ. Cp. Sonne, *Ztschr.* xiii. 431 ; Pott, *Wurzelwörterb.* i. 405 ; Leo Meyer, *Ztschr.* ix. 385.

gloss εἶεν· ἐπορεύετο, which is suspicious because it does not come in its proper place alphabetically. Herodotus too knows only ἤια, ἤιε, ἤισαν, while he never augments εἰ to ῃ (Bredow de dial. Herodot. 309). Under these circumstances we shall assume the same relation to exist in the singular, also between ἤιε A 47, H 213, ἦε M 371, and ἴε Γ 383, and venture accordingly to regard ἤια or ἤιον as 1st sing. as the exact counterpart to the Skt. *ājam*, the imperf. of the rt. *i*, and ἤιον as 3rd pl. as that of the Skt. *ājan* (for **ājant*). To ἦσαν there is moreover an exact 133
parallel in the Old-Persian *atiy-âisa* they overstepped, *patiy-âisa*=ποτι-ῆσαν (Spiegel, D. Altpers. Keilschriften, p. 188, cp. 168).

But how is the long vowel to be accounted for in these forms? It has been thought that it might be taken as a proof that the augment originally consisted in a long *a*. It would be strange, if this were so, that this should be almost the only instance of *ā*. Schleicher (Comp.[3] 738) is of opinion that there was in the Indian forms no contraction of *a*+*i*, *a*+*u*, which must have given *ē*, *ō*, but only an approximation of the two letters, the result of which would have been *āi* and *āu*. This explanation would not suit the Greek forms anyhow, for in Greek the approximation of ε+ι very often leads to ει, as it did in the above-mentioned εἶδον. I should be more willing to believe that the vowels *i* and *u* produced a spirant before them, which made itself felt later in the length of the *a*. ἤια would thus stand on the same footing as χρυσήιος, ἀνθρωπήιος, and other forms of the kind which I have discussed at Stud. ii. 187. However this may be, the agreement between ἤια and the Sanskrit forms in the matter of augmentation may be set down as established.

In all other cases the rule is that the initial vowel is simply lengthened. In inquiring into the origin of this apparently remarkable rule we must notice, to begin with, what it is easy to overlook, that the whole amount of cases affected by the rule is by no means a large one. In Homer there are only four or five instances of an ι made long by the augment: ἰαίνετο δ' ὕδωρ κ 359 (by the side of ἴαίνων and the like), ἴτυχον (μέγα ἴαχον, ἐπίαχε Σ 29), ἐπίηλεν χ 49 (by the side of ἐπιάλλων), ἵκανε (ἐς Χρύσην ἵκανε A 431, καρπαλίμως, δ' ἵκανε θοὰς ἐπὶ νῆας Ἀχαιῶν B 17, by the side of ἱκάνω, ἱκάνει etc.), ἵκετο (ἵκετο πένθος A 362, ἵκετο δῶμα Φ 44 by the side of ἱκέσθαι etc.). The stems ἰαχ and ἰκ once had a *F*, so that the augmented forms cannot be of a very ancient date. The later periods will not add very much to this list, as the number of verbs beginning with ι is small. We get e.g. ἱκέτευσα, Eurip. Med. 338. Several
of this small class of verbs, e.g. the derivatives of ἴδιος ἰδιοῦν, ἰδιάζειν 134
etc. hardly occur in poetry. Some derivatives of ἱερός, like ἱερεύω and again ἰθαίνω, ἰμάσσω (in Homer there is only ἴμασεν), might possibly furnish instances, but I have not been able to find any.

Of verbs in ν there is not a single instance of an augmented form in Homer, and even in later Greek they need a great deal of looking for, as the number of such verbs is small. The following are certain: Aesch. Prom. 558 καὶ λέχος σὸν ἴμεναίουν, Anthol. vi. 265 Νοσσίδος ἴφαινεν Θευφιλὶς ἁ Κλεόχας, to which Nauck (Mélanges Gréco-Romains, iv. 5) adds three more from ὑφαίνω, one from ὑγιαίνω (οὐχ ὑγίαινε Com. anon., Meineke, iv. 182), and ἴλάκτει κύων (Aristoph. Vesp. 1402). ἴβριζες, Eur. Tro. 1020 and the like do not count, as here the ν may be long in the tragedians in unaugmented forms, so that ἴβριζον might stand

on the same footing as ἠσσώμην. On the whole I do not think it is going too far to say that the rule which all grammars give is established by barely a dozen verbs altogether. This fact puts the difference between Greek and Sanskrit in a completely different light. The Greek usage is evidently the result of a comparatively late development, due to the analogy of the verbs beginning with a hard vowel. Owing to the lack of primitive stems beginning with ι and υ the old tradition was apparently quite interrupted, and ἤια, which took an anomalous position instead of serving as a pattern for the rest, stands alone as witness to the old rule.

Another anomaly of the augment which has not had much notice bestowed on it is the change of the position of the aspirate. Inasmuch as the temporal augment originated in the syllabic, in the contraction, that is, of the α with the initial vowel, we should expect to find this form of the augment always with the spiritus lenis. The asper shows that the linguistic sense had no very lively recollection of this contraction. Hence even Homer has ἤρει (P 463), ἤπτετο (Υ 468), ἤρμοσεν (P 210), ὥρμαινε, ὥρμησε, though in verbs in which the spiritus asper had arisen from σ, ϝ, or *j*, the contraction could not have been of very long
135 standing. The sense of the connexion between the preterite and the other verbal forms was probably too strong to allow of such a difference as we can imagine might have existed between ἅπτεται and *ἤπτετο.

Still more surprising than the aspirated temporal augment is the aspirated syllabic in forms like ἑάλων, ἑέσσατο, ἑώρων (cf. above pp. 79 and 81). The grammarians defend this strange usage by the peculiar supposition that the ε is not ἐκ κλίσεως, not inflexional, that is, or, in other words, not an augment, but ἐκ πλεονασμοῦ (Herodian, i. p. 542). They had cases like ἔεδνα in their minds. We may learn two things from these forms: first, the fact that the spiritus asper was of a movable nature, and had no prominent position as a letter even in early times; and secondly, the power of analogy which was here the means of obscuring so ordinary a linguistic instrument as the augment.

There is moreover a noteworthy exception to this surprising rule in the case of a temporal augment, i.e. the Homeric ἅλσο, ἅλτο, with its spiritus lenis. The forms are attested beyond any doubt at Π 754, Λ 532, Γ 29, Δ 419 etc. Herodian expressly prescribes the lenis at Λ 532, and gives some marvellous explanations of it. Other witnesses to the fact are collected by La Roche, Homer. Textkritik, 185. Since, as Buttmann saw (ii. 109), the circumflex points to a contraction, it is best to set down the lenis as a relic of the old pronunciation, and take ἅλτο to have come from ἐ-ἁλ-το, or, more properly speaking, *ἀ-ἁλ-το. If this is the right conclusion we have here a completely isolated instance, which can only have arisen at a time when the α still remained intact, though the original σ of the rt. ἁλ (Princ. ii. 167) had already passed into the spiritus asper, the order of the changes being different to that in the cases of the above-mentioned ἑέσσατο, ἑάφθη, εἷρπον, whose predecessors, *ἐ-σέσσατο, *ἐ-σάφθη, *ἔ-σερπον, seem to have known a time when the α of the augment had been weakened to ε, but at which the σ, which was afterwards volatilised, still remained intact. Some doubts might certainly arise about ἅλτο from the fact that ἅλμενος often appears with the lenis, which does not admit of the same explanation. But might this not have arisen from a mistaken imitation of ἅλτο? Even μετάλ-

μενος Ε 336, ἐπάλμενος Η 260, and elsewhere, might be accounted for by the instances which, though not plentiful, do occur, of an Ionic preference 136
for tenuis instead of asper, such as ἐπίστιον ζ 265, αὐτόδιον θ 449. It is conceivable therefore that there once was a ἄλμενος corresponding to ἅλτο. The attempt to explain the lenis in ἤμβροτον in the same way would find an obstacle in ἡμάρτανον Ω 68. The etymology, and the related ἀμβροτάζειν, rather point here to the lenis as the original initial (Princ. ii. 350).

C) Absence of the Augment.

At the very beginning of our investigation of the augment we encountered the question whether and how far it is an integral and original part of the preterite.[9] The fact that the augment is very often left out in the Vedas (Benfey, Vollst. Gr. p. 362; Kurze Gr. p. 85), that its omission is not unknown even in epic Sanskrit, and is the rule for all periods of the language after the particles *mā* (μή) and *sma*, taken in conjunction with the other fact that the augment is unstable in the Homeric poems, has led to the precipitate conclusion that the old original Indo-Germanic language stood on the same footing in this respect as the two oldest texts which have come down to us from India and Greece. The course of the development of our science teaches us caution, I think, most emphatically. How many centuries do we suppose passed from the time when the Indo-Germans, as we imagine, lived as one nation in the table-lands of Asia, to that when the Indians composed the oldest of their hymns which we possess, or to that still later period of the Homeric poems? We do not rush in other instances to the conclusion that because two languages agree in the absence of some element, it must therefore have been absent in the primitive language. The Indians, even the oldest of them, said *s-mas* for *as-mas*, and the Romans said *su-mus*; but a glance at ἐσ-μὲν is enough to show us that the loss befel these two languages independently, as on the other hand *erant* teaches us that
the loss of the *t* in the Skt. *ásan* and the Gk. ἦσαν is of no very ancient 137
date. Who could deny that the language of the Vedas has itself been subject to most material alterations? Aphaeresis is of pretty frequent occurrence in prepositions in Sanskrit—*api*, for example—and in aphaeresis we may find a satisfactory explanation of the loss of the augment. And the Homeric language too has its own special weaknesses which are sometimes corrected by the language of a later time, and the Dorians and Aeolians especially preserve many older forms than Homer. We may perhaps even venture to maintain that it is the peculiarity of old periods of language that in spite of all the treasures they preserve for us from a preceding period, they always show certain signs of degeneration which disappear again as the consciousness of the rule grows more defined. For instance, it is only in Homer that we find ῥά and ἄρ by the side of ἄρα, and in Homer, though, in this case, not in Homer only, we find νέρθεν for ἔνερθεν, though it is unmistakable that it came from ἐν. Again, without accepting the superficial doctrine of

[9] I am pleased to find that Delbrück, *Altind. Verbum*, p. 80, agrees unreservedly with my view, that the augment was from the first a necessary part of the preterite.

earlier times, which made the metre responsible off-hand for all possible kinds of license, we must admit that where pairs of forms existed in the spoken language, the poets eagerly availed themselves of the fact. Every additional mode of expression gives additional facility in the fabrication of the verse. If then, as we assume, at the time of the formation of Homeric language, or perhaps of its predecessor, the language of those stiffer Epic songs which must have preceded Homer, *βῆ* was said now and then as well as *ἔβη*, *βάλλε*, as well as *ἔβαλλε*, how convenient this must have been found by the not over deft versifier of those early times! And how could even the more elaborate Epic of a later time afford to abandon so productive a source of useful alternatives in the arrangement of the words? *ἔβαλλε* could not begin a line, how convenient to have *βάλλε* at command as well, and the same in other like cases! Against the assumption that the augment existed from primitive times till a little before the period of the Homeric poems, as a kind of movable prefixed particle, sometimes present and sometimes absent, decided objections may be found in the history above given of the tem-
138 poral augment. We saw the temporal augment to be a syllabic augment which in an earlier period, before Greek was a separate language, had lost its original shape. But if it lost its original shape it cannot have had a separate existence of its own: the two things are inconsistent. Moreover the preservation, in spite of phonetic difficulties, of the *ε* after the disappearance of initial spirants, whether it remained unchanged or was contracted, goes to show that the spoken language was by no means in the habit of dismissing the augment off-hand.

It seems to me best on all grounds to suppose that shortly before the rise of the Greek Epic the augment became occasionally exposed to the same tendency towards wearing away (*Verwitterung*), which the *ἀ* of *ἄρα* and the *ἐ* of *ἔνερθε* could not always withstand; that there were, in short, pairs of forms then in use, one with the augment and one without. This assumption too will be found to suit the special conditions under which the augment fell away, in reference to which the following facts are to be noticed:

1) The syllabic augment is never wanting anywhere but in poetry, with three exceptions. These are *χρῆν*, which from Herodotus onward is more used than *ἐχρῆν*, iteratives, with regard to which we have only Herodotus to deal with, and pluperfects. In the case of the last-mentioned the loss is quite explicable, and was due no doubt to the difficulty experienced in the attempt to retain the augment always when coming before a reduplication, a difficulty which made itself felt in the same way in the case of the reduplicated aorists, which, however, all but *ἤγαγον* and *εἶπον*, were confined to poetry. The iteratives would anyhow have no great need of an augment, as they are preterites which have no corresponding presents or modal forms. We may notice specially however the well-attested *ἧσκε*=*ἔσκε* in Alkman fr. 72 B³. For *χρῆν*, which is post-Homeric, Ahrens conjectures an origin from *χρὴ ἦν*=*χρεὼ ἦν*. (On the verbs in *-μι* cf. Nauck, Bulletin de l'Académie de Pétersb. p. 28; Kühner, Ausf. Gr. I² 667.) However this may be, these exceptions are, when compared with the thousands of forms that have an augment, so insignificant that they help rather to establish the general rule than to confute it. The fact that the living spoken language, as far as we can see, as good as never neglected the augment in its completest form, is

a strong confutation of the view which represents the augment as an unessential element in the word.

2) The omission of the syllabic augment in Homer was purely a matter of choice. After all the laborious investigations of Grashof (Programm of Düsseldorf, 1852), M. Schmidt (Philol. ix.), La Roche (Homerische 139
Text-Kritik i. Alterth. p. 423 ff.), and others, very little else can be said than was said by Merkel, Praefatio ad Apollon. Rhod. p. 107: 'de augmento verborum molestissima est ac fortassis inextricabilis quaestio.' Herodian has told us (on Θ 161) that *ἴση ἡ χρῆσις παρὰ τῷ ποιητῇ* (similarly on B 808). Beyond this we shall hardly advance. No doubt conventional considerations of the structure of the verse and of euphony were in many instances used as a guide, but it is scarcely possible to reduce these to the shape of definite rules, and the ingenuity of scholars who tried to unearth them would be better employed elsewhere.

3) Post-Homeric poetry adopts the power of dispensing with the syllabic augment as an inheritance from its predecessor, and makes the greater use of it in proportion as it is removed from the language of ordinary life. Hence it is that, as is shown by the careful investigations made by Renner (Stud. i. 2, 18 ff.) the omission of the syllabic augment is extremely rare in iambic, and far more common in elegiac and lyric verse. Hence, as is shown (Stud. i. 2, 259) by Gerth, in the dialogue of tragedy the range of this license is very limited indeed, while the majority of instances of it occur in the slightly Epic style of the messengers' speeches, or still more commonly in lyric passages.

4) The case of the temporal augment is altogether different. Owing, no doubt, to the phonetic difficulty with which its pronunciation was accompanied, it was at no time preserved with strict consistency. In Herodotus, as is shown by the careful investigations of Lhardy (Berol. 1844) and Bredow, the temporal augment is very frequently absent, especially before double consonants: *ἀρρώδεον*, *ἔρδον*, *ἔρξαν*, *ἔψησε*, *ἀπαλλάσσετο*, just as in Homer it disappears particularly often in similar circumstances. So too before diphthongs: *εἴκαζε*, *εὔξατο*, *εὖδον*, *αἴρεε*, *αὔξετο*, *οἴκτειρε*. It is evident that the same reasons are at work here as made the Ionians say *ἔσσων* for *ἧσσων*, *κρέσσων*, *μέζων* for *κρείσσων*, *μείζων*, *ἀπόδεξις* for *ἀπόδειξις*. Here too we have not as yet discovered clearly defined rules, especially as the M.SS. fail us sometimes, as was to be expected. The disinclination to heavy diphthongs occasioned even in Attic Greek forms like *αὔαινον*, *εἴκαζον* (by the side of *ἤκαζον*), *εὗρον*,[1] and the disinclination to long vowels before double consonants produced 140
ἔζετο and *ἐλληνίσθησαν*. In all these cases it was not felt to be in any way a Homeric or poetic usage to leave out the augment.

The best expression therefore of the important difference between the omission of the syllabic augment and that of the temporal is this: the former is a poetical and archaic license, the latter is a sacrifice to convenience of articulation, and was more or less common to all periods. Both omissions fall under the head of weakening, and at no time did the

[1] Cp. Lobeck. *ad Phryn.* p. 140, and his note, directed against Elmsley's craving for uniformity (*ad Med.* 190), on *Ajax*, v. 120. In a note on this verse Dindorf remarks that the augment in *εὗρον* is unknown to the La. M.S. of Sophocles. Wecklein (*Curae Epigraphicae*, 33) finds inscriptional evidence to *ηὑρέθη* from the year Ol. 95, 3, but no similar evidence to forms without augment till a later date. Still, the number of cases is on the whole *very* small.

Greeks lose the sense that the augmented form was the complete and the correct one.

D) The Position of the Augment.

We shall not enter here into the individual peculiarities in respect to the position of the augment in compound verbs. The statistical statement or even the general review of these does not fall within the province of the genetic consideration of the Greek Verb. We may however call attention to the fact that nice distinctions were observed, and definite rules arose for its position. The guiding principle was clearly this, that in the preterite the augment was bound immediately to precede the real stem of the verb. Prepositions are transitory elements, defining the direction of the verbal notion either in its original or in its metaphorical application, and were not regarded as belonging to the proper substance of the verb. For this reason they stand before the
141 augment, and outside the frame of the verbal form,[2] and in like manner complete freedom of position is allowed them in other instances in the older language. Forms then like προςέειπε, περιέβη, and the corresponding Sanskrit forms like *pratj-a-vōkat*, *parj-a-gāt*, prove incontestably that the verbal form had become far more closely united to the augment than to the preposition. There are exceptions and irregularities in both languages. But the mere fact that such definite laws arose, shows how far both languages were from regarding the augment with indifference. If the augment really had for centuries, and up to Homer's time, been felt to be an entirely unessential element in the verb, it would be inconceivable that such laws should have arisen, and that men should not have taken the short and simple course of leaving the augment out altogether. Our Sanskrit grammars give us very sparing information as to the practice of that language (Benfey, Vollst. Gr. p. 361). We can see this much however, that it was a refinement peculiar to Greek to distinguish prepositions in this respect from other prefixes, such e.g. as εὖ and δύς. The structure of the language shows in this something of a glimmering consciousness of grammatical categories which was not developed till much later into a clear recognition of their nature.

The irregularities in Greek are specially instructive in two ways. By far the greater part consist in this, that even such verbs as have been derived from nouns already compounded with prepositions which have become an integral part of the word, allow the augment, contrary to the fundamental principle to follow the preposition. The rule is satisfied in ἠναντιούμην (Thuc. iv. 89), but not in ἀπ-ε-δήμησε, ὑπ-ώπτευον, προ-ε-θυμεῖτο, and many other like cases, on which the reader may be referred specially to Kühner, Ausf. Gr. i.[2] 516 ff. These exceptions show that the linguistic sense of the Greeks came in the course of time to follow external instead of internal analogies, and took refuge in the simplest statement of the rule, i.e. to put the augment always *after* the preposi-

[2] It might even be said that the preposition is not compounded with the verb-stem, but with the particular verbal form. This view resembles that expressed by Apollonius Dyskolos (Herodian, Ed. *Lentz*, ii. 790): ἐπὶ τῶν ἀπὸ προθέσεως ἀρχομένων γίνεται σύνθεσις κλίσεως, i.e. composition with the inflected, in this case, the augmented form. τουτέστι κατὰ χρόνον γίνεται ἡ σύνθεσις, καὶ ὡς ἄν τις εἴποι, πρῶτον κλίνεται καὶ οὕτω συντίθεται, οἷον ἀπὸ τοῦ γράφω γίνεται καταγράφω, καὶ ἀπὸ τοῦ ἔγραφον κατέγραφον.

tion. They carried this so far as to push the augment into the middle of the word when the word only apparently began with a preposition, saying *διηκόνουν* for the older *ἐδιακόνουν*, *διητώμην*, and the like.

The second main exception is to some extent an outcome of the principle itself. In cases where the preposition had so far lost its force as such that it ceased to be recognised as a preposition, where, that is, 142 the compound verb formed a practically indivisible whole, the augment took its usual position : *ἠφίειν*, *ἐκάθευδον*, *ἠμφίεσα*. In the case of such subtle differences it is only natural that there should have been deviations from the rule, of which again there is one kind which most deserves our attention. A considerable number of verbs have a twofold augment, one at the beginning and one in the middle : *ἠντεβόλησε* (Arist. fr. 101 Dind., while we read *ἀντεβόλησε* at Λ 809), *κατ-ε-δι-ήτα*, *ἠνώχλουν*. As a rule the second of these augments is the older one, and the first was added when the preposition had almost ceased to be felt as such. Here again the almost anxious solicitude not to overlook the augment, even in forms of this kind, shows how little it was felt to be dispensable as a mark of past time.

CHAPTER IV.

PRESENT STEMS WHICH HAVE NO THEMATIC VOWEL.

Now that we have considered the two expedients most widely used in the structure of the verb, the personal terminations which appear at the end of all verbal forms, and the augment which is attached to the beginning of a portion of them, and in so doing have become acquainted with the frame which is common to forms of the most various kinds, we next turn to the manifold systems which group themselves round the various tense-stems, beginning of course with the simplest. Now the simplest verbal forms are those of the so-called conjugation in *-μι*. Forms like *φα-μέν*, *ἔ-θε-μεν* cannot be said to have anything beyond the barest necessities in the way of formal elements. In this respect they stand apart both from such forms as *δρά-ο-μεν*, *ἐ-λίπ-ο-μεν*, and from such too as *πίμπλα-μεν* and *δείκ-νυ-μεν*. For the purposes of a general review of the Greek verbal structure, however, it is better to keep the old twofold division which treats as a single class all verbs which know nothing
143 of the vowel — whether an o-sound or an e-sound — which we call thematic.

The present-stems which have no thematic vowel fall into two main divisions.

I. Monosyllabic.

II. Dissyllabic.

We shall begin with the first division, as it is the simplest.

I. MONOSYLLABIC PRESENT-STEMS.

A) Vowel-stems.

In two of the verb-stems of this class, *φα* and *ἰ*, we notice an alternation between forms with a short stem-vowel, like *φα-μέν*, *ἴ-τε*, *φά-θι*, *ἴ-τω*, *φά-μενο-ς*, *ἵ-μεναι*, *ἐ-φά-μην*, *ἔ-φα-το*, and others with a long one, like the Dor. *φᾱ-μί* (Aristoph. Ach. 736)=Att. *φη-μί*, *φᾱ-τί* (ib. 771)=Att. *φη-σί*, *εἶ-μι*, Dor. *εἶ-τι* (Hesych. ἴξειτι· ἐξελεύσεται)=Att. *εἶ-σι*. Of the related languages Sanskrit shows a most decided agreement in this, but only in roots in *i* and *u*.

é-mi (from *ai-mi*)		*i-más*
é-shi	*i-thás*	*i-thá*
é-ti	*i-tás*	*j-ánti*.

Roots in *a*, on the other hand, whose vowel counts as radically long in Sanskrit, keep this long vowel throughout, so that though *bhā́-mi* and *φᾱ-μί* coincide *bhā-más* and *φᾰ-μές* do not. Some traces of the same phenomenon appear in a like place in Zend: *aêi-ti*=Dor *εἶ-τι*, 2nd sing. imperat. *i-di*=*ἴ-θι* (Skt *i-hi*); while in Lithuanian the diphthong goes

through all the persons: *ei-mì, ei-sì, eí-ti, eí-me* (Schleicher, Comp.[3] 783). The whole process gains special importance from the fact that it is repeated in the dissyllabic stems among the verbs in *-μι*, and that to a far greater extent and with far greater regularity, and that some traces of it are to be seen in the perfect-stem as well. Various kinds of explanation have at times been attempted of this. To an earlier period in which it had become habitual to regard vowel-intensification as a dynamic process, arising from the effort to attach greater emphasis to 144
certain peculiarly significant syllables, succeeded a complete revolution of ideas on this head, represented most markedly by Grein (Ablaut, Reduplication und secundäre Wurzeln, Cassel, 1862), and his views are more or less shared by Benfey and Holtzmann, and also by Kuhn (Ztschr. xii. 143). The teaching of this school is that all intensification of sound is of purely external, and hence *mechanical*, origin, and is effected solely by the accent. This view relies for support on what is certainly a pretty formidable series of facts drawn from the verbal inflexion in Sanskrit, which prove that there existed in this language a far-reaching though certainly not an absolutely unconditional connexion between intensification and accentuation. To establish this theory it is necessary to suppose that Sanskrit has in all those cases preserved nothing but the original accent, that, on the other hand, all the other languages, and in particular Greek, which elsewhere shows much agreement with Sanskrit in matters of accent, shifted the accentuation completely, and not only so, but that this shifting had no power to effect any change in the length of the different syllables, which we must assume to have been by that time definitely settled. Besides, if we are to be convinced by this doctrine, the process of noun and case formation must be thoroughly examined with reference to this point, and a like agreement must be shown to exist throughout these regions, or in a great portion of them, between the forms assumed by vowels and the position of the accent. Even granting though that this could be done,[1] this would-be explanation would not be a real explanation after all. For no answer would be found to the question why the accent shifted in such a capricious way. Why not hold the opposite to have been the case, and find in the intensification itself the reason why the accent clings to the stem-syllable, and suppose that where strength was not thus added to it the final syllable 145
had power to attract the accent to itself, somewhat as λιπών as compared with λείπων may have owed its accent on the last to this circumstance? In this way one assertion would be met by another.

Bopp, again, did not altogether accept the theory of the mechanical production of the changes here under consideration. He attributed the difference between the form with the stronger and that with the weaker stem to the 'weight of the terminations.' The tendency to strengthen the stem only makes itself felt before the lighter terminations of the singular, while it is counteracted by the heavier terminations of the

[1] Since I wrote this, the inquiry into the effect of the Indo-Germanic accent on the form of the words of the several languages has been conducted with decided result and from quite new points of view by Karl Verner (*Ztschr.* xxiii. 97 ff.), and succeeded by still further investigations by Osthoff (*Beiträge zur Gesch. der deutschen Sprache*, iii.) and Brugman (*Studien*, ix.). These labours, however, which are still fast proceeding, deal more directly with other provinces than with that which occupies us at present.

dual and plural, which, as we have seen above, had never less than two syllables, and also by those of the middle; or, to use Bopp's own words, it is 'revoked before the heavy terminations.' Whether we are to suppose that the fuller form of the stem did actually exist at one time in the dual and plural as well, and that it was afterwards exchanged for the lighter, we are not told. Such a revocation as this would in fact be extremely rare, and could hardly be supported by analogies. Holtzmann's accentuation hypothesis, which is closely bound up with the still bolder theory that the whole phenomenon of the Guna owes its existence to the influence of an *a* either present or supposed to have once been present, is controverted by Bopp, Vergl. Gr. ii.[2] 480, at which place he expresses his belief that in the weight of certain terminations is to be found at once the cause of the shifting of the accent and that of the 'revocation' of the intensification. This view has at least this much in its favour, that it contains a uniform principle. But even so we are left with a mass of difficulties, e.g. in the imperative, where we should have to suppose that the Skt. *dhi* had the force of a heavy termination. For this reason Schleicher has been very guarded in his expressions on this point. Without going into the reasons of the phenomenon he merely notices (Comp.[3] 750) the fact that 'the intensification only holds before the personal terminations of the indicative sing. act.' I would only suggest that instead of 'holds'—by which word it is implied that in other forms the intensification has lost its hold—we should say 'takes place.' For no one will be able to show that in the place of *i-mas* men ever said *ai-mas*, or in that of ἴ-μες εἶ-μες. For the
146 same reason we shall have no right to place this sporadic intensification of the root-vowel without qualification on the same footing with that permanent[2] intensification which provides the distinguishing mark of the second class of thematic verbs (λείπω, φεύγω). We should perhaps do better to seek for a parallel in the occurrence of fuller stems by the side of shorter ones, which is to be noticed here and there in the declension of nouns, where we find e.g. stems like πολι and πολει, ἀστυ and ἀστευ changing places with each other just in the same way, though no definite reason has as yet been found why there should be two forms. It is undeniable that the linguistic instinct took pleasure, at some time early in its history, in adding greater versatility to inflexion by supplementing the effect of the various terminations by giving the stem itself the power of appearing in slightly different shapes. We may be sure though that the weight of the terminations had something to do with this change of quantity. The effort to dwell on the stem in pronunciation was checked by the greater weight and number of syllables in the terminations, and so far, it seems to me, Bopp's principle is correct, though it cannot be said to explain everything.

In any case I shall not be wrong, I believe, in saying that this sporadic intensification is not an expedient employed specially to form

[2] Fr. Müller, *Die Vocalsteigerung der indogermanischen Sprachen*, Vienna, 1871 (*Sitzungsber. d. k. Akad. phil. histor. Cl.* vol. lxvi.), has within the shortest possible compass enunciated propositions of a very general nature about these phenomena. With *one* of these, i.e. that the Indo-Germanic period knew but one stage of intensification, I entirely agree. But I fail to see sufficient grounds for the assumption that in the case both of present-stems in *nu* and of noun-stems in *i* and *u*, we ought to start from the fuller forms *na-va*, *aja*, and *ava*.

the present-stem. That it is not so is clearly evident from the fact that ἔ-φη-ν, ἔ-φη-ς, ἔ-φη bear exactly the same relation to the rt. φα that ἔ-βη-ν, ἔ-βη-ς, ἔ-βη do to the rt. βα, and that as the long vowel does not hold its place in the imperfect so firmly as in the aorist, it has evidently nothing to do with the expression of a continuous action. Strictly, then, ἔ-φη-ν is no imperfect, but a preterite, and lacks the marks which distinguish the imperfect from the indic. aorist. H. L. Ahrens (Formenl. 2nd edit. p. 92) says, 'In truth this supposed present ought more 147
properly to be called a 2nd aorist with a primarium, and this is made clear by the purely aoristic force of the preterite.' 'Primarium' is the term used by Ahrens for the indicatives of the present, perfect, and future; as a rule aorists have none, but here is a case in which such a tense occurs. It is just the same, however, with εἶμι, whose participle ἰών actually follows the analogy of the aorist in its accent. Here in the indicative the momentary action in present time shifts its ground to the future, a process to which we shall find analogies below in the thematic conjugation. The forms from consonantal stems, moreover, which we shall take next, are formations of a similar kind.

The presents belonging to this class are as follows:

1) φη-μί, conjugated through present and preterite from Homer onwards. For ἔ-φα-ν (N 89), φά-ν (Z 108) Homer has also the longer form ἔ-φα-σαν (O 700), φά-σαν (B 278), formed, as we saw on pp. 12 and 48, by composition with -σαν = ἔσαν, ἦσαν. Besides these, Homer has the middle forms φά-σθε (ζ 200), φά-μενο-ς (E 290), φάσθαι (I 100), ἐφάμην (M 165), and often ἔ-φα-το, φά-το, φά-ντο.—The 2nd sing. φῂς is peculiar: the ι subscript has the authority of all the old grammarians with the exception of Apollonius Dyscolus, who preferred to omit it. The authorities may be found collected in La Roche's Hom. Textkritik, 374. φῄ-ς is most likely of a like formation with the Ionic 2nd sing. εἶς, that is, the ι of the original termination -σι, makes itself heard in the stem-syllable preceding, exactly as in λύεις for *λύε-σι or in the Aeol. γέλαις.—If, as Apollonius assumed, the 3rd sing. pres. in an obscure fragment of Anacreon (Be.[3] 41) really was φῆ, the termination -σι must have fallen away after the Aeolic fashion (Ahrens, Aeol. 138).

2) εἶ-μι. The only forms which have no expansion of stem beyond that already discussed, which is confined to the singular, are εἶ-μι, 2nd sing. εἶ (Soph. Trach. 83) or εἶσθα (K 450), εἶ-σι, ἴ-μεν, ἴ-τε, ἴ-ασι,[3] and in the preterite ἤ-τηνν (A 347), ἦ-μεν, ἦ-τε (both Attic), ἦ-ισαν (K 197), ἐπ- 148
ῆσαν (τ 445), ἴ-σαν (Γ 8). The expansion by means of added vowels will be discussed below.

3) Of precisely similar formation again is a third present which only occurs in the middle, the real nature of which has not as yet been generally recognised: ἐπί-στα-μαι. The old grammarians were greatly perplexed by this word. In Choeroboscus's discussions, given by Lentz in his Herodian (ii. 839), we find three different explanations of it. Apollonius identified it with ἐφίσταμαι, assuming an Ionic psilosis. Such an explanation as this could not find favour with anyone except

[3] A remarkable Latin form of apparently like stamp, i.e. '*int πορεύονται*,' has been brought to light by Gust. Loewe in his *Prodromus corporis glossariorum Latinorum*, p. 421, from the '*glossae Philoxeni*': *īs, īmus, ītis* reveal themselves by their long vowel as contracted from **e-i-s* etc. and are therefore thematic.

the old grammarians, who saw no difference between the psilosis in *ἀπ-ηλιώτης* (Princ. i. 497), which is accounted for by its etymology, and that at the beginning of *ἵ-στα-μαι* (for *σι-στα-μαι*). A second derivation from **ἐπ-ισα-μαι* the middle of *ἴση-μι* I know, '*πλεονασμῷ τοῦ τ*,' may perhaps find acceptance again with the modern advocates of pleonasm, but not with us. The view of Philoxenus, who starts from the verbal adjective *ἰστός* (rt. *Fιδ*), in order to get first to **ἰστάω* and thus to **ἵστημι* **ἵσταμαι*, cannot be reconciled with the shortness of the *α*, which points decidedly to a primitive formation. Buttmann (Lexil. i. 278 note) thought the case hopeless, and pronounced *ἐπίσταμαι* to be an original word. The correct solution is given by Pott (Wurzelwörterb. i. 341): 'With respect to the form, he (Buttmann) has failed to notice that, though *ἐπίσταμαι* cannot be identified with the reduplicated *ἐφ-ίστα-μαι*, it may very well be related to it as containing an *un*-reduplicated form of the same root, like the Lat. *sto*, which would be **σταμαι*.' The Lat. *sto* is not completely analogous, for it has become thematic, and would be more exactly represented by a Gk. **στάω* mid. **στάομαι*. In the participial *στά-μνο-ς* tub. (Germ. *Ständer*) however we have in Greek itself an analogy for such a formation, as again in the O.H.G. *stân* and the Ch.-Sl. *sta-ti*. As to the meaning acquired, we are justly reminded of the German *ver-stehn* (O.H.G. *fir-stân*, M.H.G. *ver-stân*) and the English *under-stand*. The three verbs seem to have had in common the meaning 'step up to, apply oneself to something,' the English word, like the German '*sich unterstehen*,' in the sense of venture on, being suggestive of
149 *ὑποστῆναι* or subire, while *ἐπίστασθαι* is not to be separated from *ἐπιστάτης*. It thus contains the notion of superiority. There is no very close connexion between the German *vorstellen* (represent), *sich vorstellen* (conceive), or the active *ἐφιστάναι τὸν νοῦν* and *ἐπίστασθαι*. From Homer onwards (*ἐπίσταμαι* *ν* 207, *ἐπίσταμεθα* N 223, *ἐπίστατο* E 60) it is always used in the metaphorical sense, and hence the consciousness of its connexion with the rt. *στα* was so completely obscured that it altogether ceased to be regarded as a compound, and had its augment from Herodotus's time onward at the beginning: *ἠπίστατο* etc.

4) While the three verbs already mentioned leave the stem-vowel in many instances short, the stem *κει* never occurs in any but the intensified form. *κεῖ-ται* corresponds exactly to the synonymous Skt. *çē-tē* and Zd. *çaê-tê* (Bopp Vgl. G. ii.² 339; Pott Wurzelwtb. i. 543, Princ. i. 178). It is doubtful whether the rt. *ki* ever appears without intensification. Two forms which apparently belong to it, the Cret. *κίαται* (Bergmann, Inscr. Cret. p. 11, line 22) and Hesychius's *κίασθαι* must, I think, on closer inspection be taken otherwise. In various Doric dialects *ι* replaces an *ε* of the other dialects before vowels (*θιός*, *ἀμίων*) (Hey de dial. Cret. p. 12 ff.). Consequently *κιάται* corresponds to the Homeric *κέαται*, to which belongs the pluperf. *κέατο*. The *ι* is here, like the *ε*, a weakening undergone by the diphthong *ει* before vowels (cp. *κείαται*, *κείατο*), like that in *βόϊον*=*βόεϊον* (Ahr. Dor. 121).—The New-Ionic *κέεσθαι* (*κέεται*, *ἐκέετο*) stands for *κείεσθαι*, and has thus become thematic, as is the case also with Attic conjunctives like *κέηται*.

5) *χρή*, used from Homer onwards (A 216) as a 3rd sing. with no personal termination, finds its only analogy in the above-mentioned *φῆ*,

but this analogy does not extend to the accent. In Attic writers there are also the conj. χρῇ, Opt. χρείη, Inf. χρῆ-ναι (on χρῆν cp. Nauck, Eurip. Stud. i. 7), preterite ἐχρῆν with irregular accentuation and a ν ephelk., or χρῆν without augment, while the part. χρέων, also with an anomalous accent and indeclinable, shows a thematic vowel. These numerous anomalies induced Ahrens in his essay on the Conj. in μι, p. 28 (cp. his Formenl. § 195) to pronounce χρή to be a substantive of the same meaning as the Homeric χρειώ, χρεώ, and χρῇ to be for χρὴ ἦ, χρείη for χρὴ εἴη etc. This, however, by no means obviates all difficultics. It is a 150
difficult question—cp. too W. Dindorf in Steph. Thes. viii. 1645—and is still in want of a thorough examination.

B) Stems ending in a Consonant.

6) Rt. ἐς. We have here to deal of course only with those forms which contain absolutely nothing but the root with the terminations, and possibly the augment. The forms of the rt. ἐς have been discussed at length by Leo Meyer (Ztschr. ix. 373 ff., 423 ff.), and the 3rd pl. pres. ind. in particular by G. Stier (Ztschr. vii. 3).

Among the forms of the pres. ind. we may here notice especially the following, as giving rise to controversies in one way or another.

1st Sing. It was so easy, even without the help of the Skt. *ásmi* and the Lith. *esmi*, to arrive at the primary Greek form *ἐσ-μί from a consideration of the Greek word alone, that even the old grammarians got as far as this. Choeroboscus says (Lentz, Herod. ii. p. 833, 8) εὐναται δὲ τὸ ἐσμὲν ἀπὸ τοῦ ἐσμὶ εἶναι. From this primary form we arrive at the Lesb. ἔμμι (Sappho, 2, 15). What the strict Doric form was we do not know. It may be doubted whether the Ionic and moderate-Doric εἰμί (Ahr. 318) came straight from the primary or from the Aeolic form; most likely from the latter. In that case εἰμί bears the same relation to ἔμμι that ἔνειμα does to the Aeol. ἔνεμμα, from which it must have sprung, because in all cases of compensatory lengthening there must have been a consonant lost immediately after the lengthened vowel.

ἐσ-σί, εἶ, εἶς have been discussed on p. 33.

1st plur. Here the Attic ἐσ-μέν surpasses all other forms in antiquity, owing its preservation clearly to the special and often shown liking of the Attics for σμ in the middle of a word. What surprises us is that the 1st sing. did not keep the σμ too. Unfortunately, we do not know what the Aeolic form was, and there are some doubts even about the authenticity of the Doric ἐσμές (Ahr. 320). The Dor. εἰμές (Pind. εἰμέν) is of frequent occurrence, and perhaps in stricter Doric it was ἠμές. Homer knows nothing but εἰμέν, and it is the same with Herodotus. Herodian (περὶ μον. λεξ. ii. 930 Lentz) has a form ἐμέν shortened from ἐσμέν, or directly perhaps from an imaginable Aeolising *ἔμμέν. The passage by which he supports it is elsewhere assigned to 151
Callimachus. For all this, good manuscript authority and an entirely satisfactory sense are not able to secure acceptance for ἐμέν at Soph. El. 21. Cp. Stud. viii. 322. Phonetically the loss of the σ is no more inexplicable than in the Homeric πύματο-ς for πύσ-ματο-ς (Princ. ii. 385), in ἦμαι by the side of ἧσται, and ἦμεν by the side of ἦστε.

3rd plur. Here, as has been already pointed out on p. 48, there are two primary forms which share the various dialects between them:

*ἐσ-αντι, whence comes only the Homeric ἔᾱσι, and *ἐσ-ντι, the source of the Doric (Ahr. 321), but also Boeotian (Ahr. Aeol. 211) ἐντί, from which again arose the New-Ionic and Attic εἰσί. A Gk. form corresponding exactly to the Skt. *s-anti*, Lat. *s-unt*, would give *ἄντι, *ἄσι, or *ᾰ̓σι.

Among the forms of the imperative we may notice ἔσθι, attested by Herodian ii. 355 from Hecataeus. This is the primary form of the usual ἴσθι. We find ἔσσο the middle to this in Sappho, i. 28. In Homer ἔσσ' occurs but twice, and in the same form of words (α 302, γ 200). Ahrens (Formenl.[2] 101) without any reason sets down the form as an imperat. fut. It is very strange that this middle form should be so isolated when ἔστω, ἔστον etc. are so common.

The participial stem ἐ-ντ offers a strict parallel to the 3rd pl. ἐ-ντι. Both forms are Doric: Alcman fr. 64 Be.[3] παρέντων, tab. Heracl. i. 104 ἔντ-ασσι, 117, 178 ἔντες.

Of the preterite forms the following belong here: 1st sing. ἦ-ν, where the σ was expelled by the same necessity as in the forms just discussed; 2nd sing. ἦσθα, where the σ of the root was forced to identify itself with that of the termination; 3rd sing. ἦς=the Vedic *ās*, long since vouched for as Doric, and especially Sicilian (Ahr. 326), and now shown by the inscription of Tegea to be Arcadian as well (Gelbke, Stud. ii. 40). ἦς is of course for ἦσ-τ, as the entirely identical Vedic *ās* is for *ās-t*. On the other hand, ἦν as 3rd sing. cannot be placed in this list because of its ν. —In the dual and plural there is a distinction between the forms which preserve and those which have suppressed the σ: ἦσ-τον ἤσ-την ἦσ-τε ἦσ-αν and ἦ-τον ἤ-την ἦ-μεν ἦ-τε ἦ-ν. The dual forms with σ are accounted good Attic; ἤστην is Homeric (E 10), and adopted from one M.S. by Meineke at Theocr. 8, 3. In the 3rd pl. the form with the σ—in which the α is of course to be regarded as the same α as that in ἔ-ασι—is the only one in common use along with the unaugmented ἔσαν.

152 The fact that the σ was no more expelled here than in the sigmatic aorist is no doubt to be explained by supposing that σαν had established itself within a wide area as the termination of the 3rd plur. There is but small authority for the form ἔσσαν, which is found in the M.SS. *H.*.and *J.* at ζ 224 instead of the ἦσαν of the remaining M.SS., and has been received into the text in two passages of Pindar (Nem. 9, 17; Ol. 9, 53), where the M.SS. read ἔσαν or ἦσαν. These points and the fragment assigned by Bergk to Alcaeus (fr. 91 Be.[3]), ''Αρκάδες ἔσσαν βαλανηφάγοι,' are discussed by Nauck, Mélanges, iv. 81 (cp. Stud. viii. 326). Since we agree with Bopp in regarding this σαν as a shortened ἔσαν, and thus regard it as an auxiliary verb added to the verb-stem, ἔσ-σαν would on this showing be a compound made by the rt. ἐς with itself. Such processes are not impossible, and cannot be denied to have taken place in the fut. ἔσ-σομαι and the Lat. *es-sem*, but here the fact is not an established one.

Not a trace is to be found of *ἦσ-μεν, which would be the form analogous to ἔσ-μεν, and the Dor. ἦ-μες and the usual ἦ-μεν are all for which evidence exists. For the 2nd plur. however ἦσ-τε, which is set down as good Attic in the Lexicon Vindobonense (ed. Nauck, p. 98), and quoted from Plato (Conviv. p. 176), has survived in two passages in Aristophanes (Pax, 821, Eccles. 1086), and Ahrens accepts it in Theocr. i. 66, on the testimony of some M.SS. The form in general use from

Homer onwards (Π 557) is ἦτε. Leo Meyer (Ztschr. iv. 425) maintains that the forms where there is no σ before the τ are contracted for ἠε-τον ἠε-τε. It seems more natural to refer the loss of the σ to the analogy of the forms in which the σ had been driven out by phonetic influences, like ἦ-ν ἦ-μεν and the middle form ἥμην, which occurred once or twice in the Attic period, and became later very frequent.

The 3rd plur. ἦν, vouched for by Hesiod Theog. 321, 825, Aristoph. Lysistr. 1260 ἦν γὰρ τῶι δρες οὐκ ἐλάσσως τᾶς Ψάμμας, and several passages of Epicharmus (Ahrens Dor. 326) bears to ἦσ-αν exactly the same relation as ἔ(σ)-ντι does to *ἐσ-αντι.

7) Rt. ἡς = Skt. *ās* (Princ. i. 472). It seems incomprehensible that Kühner (Ausf. Gr. i. 671) should hold by the erroneous opinion that ἧμαι has anything to do with the rt. ἑδ, while he at the same time compares the Skt. *ās* which is a long way from *sad* the Skt. equivalent of the rt. ἑδ. It would be quite impossible to explain the 3rd plur. ἕαται, ἕατο from the rt. ἑδ, as δ does not fall out between vowels. The final ς of the rt. undergoes exactly the same treatment as in the dual and plural of 153
ἦν. The 1st sing. ἦσ-μαι is only attested as a Dorism by Anecd. Paris. iv. 22, 8 (Ahrens 574), elsewhere it is ἧμαι, ἥμην like ἦμεν. For the 1st plur. and the participle there are no forms with σ, but only ἡ-μεθα, ἡ-μενος; ἦσ-ται, ἦσ-το are the usual forms in all dialects, also καθῆστο (New-Ionic κατῆστο), while in the present the compound never has the σ: κάθηται. There is also a preterite καθῆτο. These forms throw light again on those of ἦν. The 3rd plur. has only once in Homer the termination beginning with ν: ἦντ' (Γ 153), elsewhere it has always ανται, ατο. The formation corresponding to ἔ-ᾶσι would be *ἦσ-ανται, *ἦσ-ατο, and with the regular loss of the σ ἦ-ανται, ἦ-ατο. In the place of these our texts of Homer have εἵανται, εἵατο. These forms, favoured by I. Bekker (Homer. Bl. i. 64) were regarded by the ancients as lengthened from the likewise Homeric ἕ-ανται, ἕ-ατο. Thus Herodian ii. 268, 497, 'πλεονασμῷ τοῦ ι.' We shall hardly be satisfied with this, and shall be more inclined to hold that the old HEATAI, HEATO ought, where the metre requires a long first syllable, to be written ἧαται, ἧατο; where a short one, ἕαται, ἕατο. ἕαται is related to ἧαται as νέα is to νῆα, βασιλέᾰ to βασιλῆα. Hence, like these noun-forms, it is New-Ionic (κατέαται, κατέατο).

8) Rt. ἡ say (Princ. i. 496). The forms preserved are, 1st sing. ἠ-μί (Aristoph. Ran. 37, Nub. 1145), 3rd sing. Dor. ἠ-τί Alcman fr. 139 B.[3], Aeol. Ion. ἠ-σί (Sappho fr. 97, Hermippus Com. ii. 382, 6 Meineke), 1st sing. Pret. ἦ-ν in the Attic ἦν δ' ἐγώ, 3rd sing. ἦ in Homer and in the Attic phrase ἦ δ' ὅς, ἦ δ' ἥ. The stem ἡ stands quite alone in having lost a guttural after its vowel.[4] The Skt. *āh-a* I spoke points to an original *gh*, which has been regularly shifted to *g* in the Lat. *ad-ag-iu-m* (Princ. i. 497). The final consonant χ which we could before only infer to have existed, I have shown (Stud. iv. 208) to have been actually preserved in ἤχ-ανε-ν· εἶπεν (Hesych.). Since the Dorians and Aeolians had ἠ and not ἀ in this stem, the Greek root must be given as ἐχ. Such an expulsion of an explosive is of rare occurrence in Greek. We may however see an analogy in the loss of the same consonant in the form σπλήν 154

[4] I see no foundation for Westphal's conjecture (*Formenl.* ii. 112) that possibly ἠ arose from *fa*.

which we cannot but connect with *σπλάγχνο-ν*. The comparison of the Skt. *plihan* with *σπλήν* gives a primary form *σπλαχαν*, and with loss of the second *α σπλαχν* (Ascoli, Ztschr. xvii. 269).

C) Isolated and Doubtful Forms.

Three vowel present-stems present the appearance of a non-thematic formation, but it is extremely probable that it is appearance only. That *οἶμαι, ᾤμην*, and *ἐλοῦμεν, λοῦται, λοῦνται, λούμενος* once had the thematic vowel is universally acknowledged, only Buttmann (Ausf. Gr. ii. 236) prefers to refer the contracted forms of *λούω* to *λόω*, though the contraction from *λούομεν, λούεται* etc. is phonetically legitimate. Good reasons are advanced by Leskien Stud. ii. 104 ff. in support of Buttmann's view. Another form of the same kind is *σεῦ-ται*, which only occurs at Soph. Trach. 645. Nauck follows Elmsley in writing *σοῦται* (cp. *σούσθω* Soph. Aj. 1414). The stem *συ* corresponds to *λυ*, and so the Imp. m. 2nd sing. *σοῦ* make haste (Ar. Vesp. 209) with Hesychius's *λοῦ· λοῦσαι, σοῦνται* Aesch. Pers. 25 with *λοῦνται*, and the uncontracted Doric *σώοντο· ὠρμῶντο* (Hesych.) with the uncontracted *λώοντο* (Callim.). A present *σώω* would stand in exactly the same relation to the rt. *συ*, which appears in *σύ-το, ἔσσυτο*, as *πλώω* does to the rt. *πλυ*.

We have no hesitation however in classing *στεῦται* (Γ 83 etc., Aesch. Pers. 49 instead of the 3rd pl.) and its imperfect *στεῦτο* (Σ 191) along with *σεῦται*. I believe that I was right in referring (Princ. i. 267) these forms to a stem *stav* expanded from *sta*, and preserved also in *σταν-ρό-ς*, and *στο-ά* (for *στοϝ-ιά*), for which there are analogies in the related languages. To the same stem has rightly been referred *στύ-εσθαι* stand stiff (Fick, Indogerm. Wtb. i.[3] 246). *στεῦται* then probably stands for *στεύεται*.

The Doric *μῶται* (*ζητεῖ*) along with *μῶνται, μώμεθα, μῶμενος* (Soph. O. C. 836) is quite analogous to *σῶμαι*. *μω* can only be a by-form of *μα* (*μέμαα, μαιμάω*). The isolated active *μῶ* as 1st sing. pres. is sufficient evidence of thematic formation. If the verb really followed an older
155 fashion we should have to expect **μῶμι* here. The separate forms are discussed by Ahrens, Dor. 349 f.

There are on the other hand three isolated forms from consonantal roots, in the case of which I see no ground for the assumption that the lack of the thematic vowel is of later origin than the forms themselves. First *ἔγμεν· ἔχειν* Hesych., completely isolated, inasmuch as there is no other similar inflexion of the rt. *σεχ* as distinct from the transposed *σχε*. Next *ἔδμεναι*, of frequent occurrence in Homer, and that with a decidedly present force (cp. Δ 345, Ε 203). This mode of inflexion is here proved to be primitive by the Skt. *ad-mi*, 3rd sing. *at-ti*, Lat. *es-t* by the side of *ed-it*, Ch.-Sl. *ja-mĭ* or *ě-mĭ*, Lith. *ẽd-mi* (Princ. i. 296). We cannot be so sure of this in the case of the 2nd plur. Imperat. *φέρ-τε* (only I 171). For here, though the Greek inflexion is supported by the Lat. *fer-te* (*fer-s, fer-t* etc.) and the Skt. has *bhar-ti=fert* (Princ. i. 373), the prevailing mode of inflexion is decidedly the thematic. We are not obliged, however, to regard *φέρτε* as syncopated from *φέρ-ε-τε*.—*δέχαται* (M 147), on the other hand, along with *δέγμενος* (I 191, more frequently *ποτιδέγμενος*), cp. *προτίδεγμαι· προσδέχομαι* in Hesych., is, to use Lobeck's expression (on Buttmann ii. 21), an 'unarticulated' pre-

sent-form. Lobeck points out at the same place that the late poets made other forms like it, e.g. *ἄμειπτο=ἀμείβετο* (Nonnus).

II. STEMS OF TWO OR THREE SYLLABLES.

We start here with the present-stems whose formation is the most transparent, those which have two syllables in the present only. In these cases the force of the expanding syllable is clear. This syllable is what we may call a present-expansion, and it serves to characterise the continuous action by a greater amplitude in the form.

A) Stems which are made dissyllabic or trisyllabic by means of this present Expansion. 156

a) Reduplicated present stems.

We have already seen on p. 8 that reduplication is one of the oldest methods employed to expand the verbal stem, and thus give it additional emphasis. The same method was used to strengthen the stems of other tenses as well, especially those of the perfect and aorist, so that we are not able to find in reduplication an original and specially distinguishing mark of the present-stem. It may have depended somewhat on the individual meaning of the separate verb, whether it should use this method in one way or the other, or possibly in several. Nice distinctions were however set up in Greek between the reduplication for the present tense and that for the perfect or aorist. The present-reduplication is always characterised by the *ι*-sound, and this is observable, though only sporadically, in Sanskrit as well (Delbrück, Altind. Verb. 104 f.).

1) The rt. *βα* forms its present-stem in this way in the participle *βιβάς*, which has only survived in certain phrases, such as *μακρὰ βιβάς* (O 307, H 213), *ὑψὶ βιβάντα* (N 371), *κραιπνὰ ποσὶ προβιβάς* (N 18), *ὑπασπίδια προβιβάντος* (Π 609), in all of which an intensive force is discernible. The same may be said of the Laconic *βίβατι*, which denotes a kind of dance (*βιβασις*) in a somewhat obscure passage in Pollux iv. 102. What Ahrens (Dor. 312) says about the *ι*-sound is not satisfactory. It seems however to establish the Doric pres. *βίβαμι*. A complete parallel is furnished by the Skt. *ǵi-gā-ti* from the rt. *gā* go, by the side of which there is *ǵa-gan-ti* from the synonymous root *gam*. By a change to the thematic conjugation there arose the form *βιβῶ* (part. *βιβῶν*, an old variant for *βιβάς* in Homer). Cp. La Roche, Hom. Textkritik, 216.

2) The rt. *δε* bind is found only in two reduplicated forms belonging to the present-stem; 3rd plur. Imperat. *ἐν δεσμοῖσι διδέντων*, Aristarchus's reading *μ* 54, instead of *δεόντων*, and the 3rd sing. imperf. *δίδη*, Λ 105.

3) Common to all Greek is *δίδωμι* from the rt. *δο*, corresponding to the Skt *dádāmi*, Zd. *dadhâmi*. The long vowel in the imperat. *δίδω-θι* (*γ* 380) is remarkable, as is the diphthong in *διδοῦναι* (Ω 425). The 157
variations in the length of the stem-vowel are often irregular in the Epic dialect (cp. *τιθήμενος, τιθήμεναι*).

4) *δί-ζη-μαι* is the Epic for the later *ζητέω*, which only occurs once in Homer (Ξ 258). It is natural to conjecture that *δι-ζη* bears to *ζη-τε*

the same relation that *βι-βα* does to (*ἀμφις*)*βη-τε* (Princ. ii. 262). That *δι* is a reduplication is made more clear by the Aeol. *δί-σδη-μαι* (*ζητῶ* Hesych.). The latter form bears exactly the same relation to the stem *σδη* that the Skt. *ti-shṭhā-mi* does to the rt. *sthā*, and is similar to that of *κέ-σκι-ο-ν* sieve to the rt. *σκι*. There is no more analogy for *δ* as a representative of *ζ* in a reduplication than there is for *κ* for *ξ* or *π* for *ψ* (cp. *φέ-ψαλο-ς* by the side of *ψόλο-ς*). But we cannot doubt this explanation of *δίζημαι*. For the length of the stem-vowel we may compare *κεῖμαι*. If it were not for the *ι* in the reduplication which clearly marks the present, it might be thought to be a perfect. *δίζηαι* (λ 100), *διζήμενος* (E 168) are found in Homer, and other cognate forms in Herodotus, Theognis, Aeschylus (*δίζηνται* Suppl. 821). The future *διζησόμεθ'* (*π* 239) does not upset our theory, as is shown by the isolated Homeric *διδώσω*. By the adoption by the stem-vowel of the analogy of the thematic formation there arises *δίζω* (even in Homer Π 713).

5) *ἵ-η-μι*. I have discussed the origin of the verb at Princ. i. 500, where I adopted the derivation, first given by Bopp, from *ji-jā-mi*. It is evident that *ἵ-ε-σαν* is related in the same way to *ἕ-σαν* as *ἐ-τί-θε-σαν* is to *ἔ-θε-σαν*, and *ἱέμενος* to *ἕμενος* as *τιθέμενος* is to *θέμενος*. Buttmann (i. 521) recognised this fact. The reduplication syllable is both long and short, and I have discussed this in connexion with the partition of the different meanings between active and middle, and the traces of an initial consonant in Philol. iii. 5 ff. It explains everything if we start from a rt. *ja*, Gk. *ϳε*, which when reduplicated gives *ϳι-ϳε*. The hiatus before *ἱέμενος* (*οἰκάδε ἱεμένων* B 154) is accounted for by the surviving effect of the initial *j*, and the length of the *ι* by that of the second *j*, and the same explanation, as we saw above, p. 79, accounts for the syllabic augment in the aor. *ἧκε*. Out of the meaning 'go,' which belongs to
158 the rt. *jā* in Sanskrit, was developed on one side the causative 'make to go, send,' on the other in the middle the meaning 'strive, wish.' None other of the derivations attempted for *ἵημι* is so in harmony with both its form and its meaning as this. Pott's energetic attack upon it (Wurzelwtb. ii. 2, 288) is mainly based on the difference of meaning seen in the active. Though he cannot deny the analogy of *ἵ-στη-μι* and *si-sto* to *ἵ-η-μι* and all the reduplicated forms, he finds a stumbling-block in the fact that the non-reduplicated forms have a causative meaning too, and certainly *ἄφ-ε-σαν* 'they let go or sent' does not bear comparison in this point with *ἀπ-έ-στη-σαν* they went off, nor *ἀφεῖκα* with *ἀφέστηκα*. But seeing the causative meaning extends in the case of the rt. *στα* from the present-stem to the future and the sigmatic aorist, it is not so very much to suppose that in that of the rt. *ἑ* it extended a little further still. The German verbs for 'send,' *schicken* and *senden*, are causatives too, the former from the O. H. G. *scehan* (Germ. *ge-schehen* happen), the latter (in Gothic *sand-jan*) from **sind-an* (A.S. *sinnan*) go; and *πέμπειν*, whose etymology is obscure, shows in *πομπή* procession, and especially in the Homeric *δυς-πέμφ-αλο-ς*, an epithet of the sea, 'ill to traverse,' a meaning which points to an originally intransitive force.

In the inflexion of *ἵημι* it is the imperfect which presents most difficulty. The 2nd and 3rd sing. *ἵ-ει-ς ἵ-ει* are easily explained as having followed the analogy of the contracted verbs, so that they are contracted from *ἵ-ε-ε-ς*, *ἵ-ε-ε*, but this explanation accounts only for one form of the

1st sing. i.e. *ἴουν*, but not for *ἴειν* which appears occasionally (Herodian, ii. 835), and is countenanced by *ἐτίθειν* on an inscription (C. I. 3605, 33). Boeckh puts the inscription as late as the first or second century before Christ. I. Bekker may therefore perhaps be right (Hom. Bl. i. 61) in rejecting *προΐειν* (ι 88, κ 100) in favour of *προΐην*, and in declining, in Plato, Euthyd. 293 a, to follow the one M.S. which has *ἡφίειν*. (Cp. also *Λόγιος Ἑρμῆς* i. p. 355 f.) Possibly it is only that the 2nd and 3rd persons have dragged the 1st after them. The analogy of *ἧειν* and the pluperfects may also have had something to do with it.

6) *ἵ-στη-μι*, like *δίδωμι* and *τίθημι*, common to all Greek. Its specially causative meaning has been noticed already. We may perhaps 159
conclude from *si-sto*, which is identical with *ἵστημι*, that this meaning dates from a time when there was as yet no difference in the vowel between *si-sti-mus si-sti-tis* on one side and *ἵ-στα-μες ἵ-στα-τε* on the other, but when **si-sta-mas *si-sta-tes* were the forms in use. The peculiarly Greek transformation of the *s* to the spiritus asper needs no further discussion. The Skt. *ti-shṭha-ti* and the Zd. *hi-çta-iti* differ from *ἵ-στη-σι* in that they are intransitive and leave the vowel short after the fashion of the thematic verbs.

7) *κίγ-κρα-μι* Dor. Ahrens 346, Hesych. *κιγκρᾷ· κιρνᾷ*, Sophron. fr. 2 *ἐγκίκρα*.

8) *κί-χρη-μι*, of rather late occurrence, i.e. not earlier than the pseudo-Demosthenic speech *πρὸς Νικόστρατον* § 12 (*τῶν κτημάτων σοι τῶν ἐμῶν κίχρημι ὅ τι βούλει*). The rt. *χρα* shows a similar meaning in *χρέος*, and the Lat. *usura* illustrates the relation between *χρῆσθαι* and these words. From Hesychius's gloss *κιχρήσει· δανείσει* we can see that, as in the cases given under No. 4 (*δίζημαι*), the reduplication extended beyond the present-stem.

9) *πίμ-πλη-μι*, from Homer onwards (Φ 23 *πιμ-πλᾶσι*), in use along with *πλήθω* as a present form of the rt. *πλα* (Princ. i. 344). The Skt. *pi-par-mi*, I fill, agrees exactly with the Greek, except that in the latter a nasal is put in to strengthen the reduplication syllable as in *κάγ-κα-νο-ν*, *δέν-δρε(ϝ)ο-ν*, just as it is in a number of Sanskrit intensives. Rich. Fritzsche (Stud. iv. 310 f.), who is supported by Joh. Schmidt (Vocal. ii. 228), conjectures that this nasal is the remains of a stronger consonant. If the *μ* of a preposition precedes the word there is only a simple *ι* : *ἐμ-πί-πλη-μι*. The long root-vowel in *ἐμπίπληθι* Φ 311 is just like that in *δίδωθι*.

10) *πίμ-πρη-μι*, a present-formation unknown to Homer (who has *ἐνέπρηθον*, i. 589), but in all other respects a parallel to *πίμπλημι*, even in respect of the movable nature of the nasal: *ἐμπιπρᾶσι* (Thuc. 3, 74), *συμπιπράναι*.

11) *πί-φρη-μι*, only found in Aristotle Hist. Anim. v. p. 541 b, 11 : *ᾗ* (read *ἣν*) *ἐςπιφράναι εἰς τὸν μυκτῆρα τῆς θηλείας*. In common use in Attic are *ἔκ-φρε-ς*, *ἐπ-εις-φρῶ*, *δια-φρή-σουσι* etc., on which I cannot accept Nauck's view (Bulletin de l'Ac. de St.-Pétersb. T. vi. p. 424 ff.), for the reasons given by me at Stud. viii. 327 ff. Herodian (i. 463, 160
l. 14) says *φρές* is the same as *φέρε*. *πί-φρη-μι* may be compared with the Skt. *bi-bhar-mi* I carry, bring, in everything but the metathesis.

12) *τί-θη-μι*=Skt. *dá-dhā-mi* (Zd. 3rd sing. *da-dhâi-ti*), treated in every respect, even in that of the *ει* which takes the place of the *η*, like *ἵημι*. *τι-θή-μεναι* (Ψ 83) and *τι-θή-μενος* (Κ 34) have been noticed under no. 3.

13) *τί-τρη-μι* I bore, not found before Galen and Appian (*διατίτρησι, διατιτράναι*) for *τιτράω* or *τετραίνω*. Cp. Lobeck on Buttmann, ii. 304.

We must add here two verbs which are singular in every way, i.e.

14) *ἴ-πτα-μαι*, a late by-form of *πέτομαι*, first occurring in the spurious part of Euripides Iph. Aul. (1608), and then in Babrius, Plutarch, Moschus etc. [Aristotle Hist. An. v. 9], but apparently an old form, as there is no clear model from which it could have been taken. *ἰ* clearly stands for *πι* here, as *ἔ* in *ἔ-ψω* for *πε* (Princ. ii. 375).

15) *ὀν-ίνη-μι* which, though it is trisyllabic, and consequently must have been reduplicated from a stem which had already two syllables (*ὄνα*), may for brevity's sake be discussed here. Here, as in *ὀπ-ίπ-ας* and *ὀπ-ῑπ-εύω* (*ὀπιπτεύω*) the second vowel has become *ι*. Buttmann, Ausf. Gr. ii. 74, compares *ἀτιτάλλω* as well, only here the origin of the word is obscure. Similar phenomena are displayed by the reduplicated aorist in Sanskrit, e.g. *āp-ip-a-m* from the causative *āpajâmi* (*āp* obtain). *ὀνίνησι* in Homer only at Ω 45, *ὀνινᾶσα* Plato Phil. 58. For its origin see Princ. ii. 397, Gustav. Meyer, Nasale Präsensstämme, p. 42.

The form *διδράναι* on the other hand is spurious, though Westphal has brought it up again, notwithstanding that at Thuc. iv. 46 the reading now universally adopted on good authority is *ἀποδρᾶναι*, and there is no other credible testimony to the word.

b) Present-stems formed by the addition of the syllable *νν*.[5]

The syllable *νν*, which in a considerable number of verbs distin-
161 guishes the present-stem from the verb stem, corresponds to the *nu* of Sanskrit, where the verbs belonging here form the fifth class. In the Iranian languages too there are individual instances of this kind of present-formation (Schleicher Comp. § 293 iv. a). These expanded present-stems are to be regarded, as we saw above (p. 10, cp. my Zur Chronol.[2] p. 46 f., Benfey, Ztschr. viii. 94), as noun-themes of a kind which has been preserved in Sanskrit outside the verb as well. We saw above that in all probability such a theme in *nu* had, when these forms took a definite shape, the meaning of a nomen agentis, such as has survived, e.g. in the above-mentioned Skt. *dhṛsh-ṇú-s* bold (which would correspond to a Gk. **θαρσ-νυ*) and in *gṛdh-nú-s* eager, from the rt. *gardh*. In Greek there are no nouns of this meaning of such a formation. In form however *θρῆ-νυ-ς* is similar, from the rt. *dhra* (Skt. *dhar* hold, support), only here the meaning 'holding, supporting,' has shifted to that of 'holder, supporter,' especially of the feet, a foot-stool. It is clear that the suffix *nu* is very closely related to the suffix *na*. Present-stems in *nu* and in *na* (9th class) are very often developed side by side from the same verb-stems. The syllable *na* appears in Sanskrit in one special class of verbs, the 7th, in the middle of the root: *ju-ná-ǵ-mi* from the rt. *juǵ*. Not unfrequently too there appears, especially in the Sanskrit and Latin, a simple *n*: *ju-ñ-ǵ-más* 1st plur. to the sing. *ju-ná-ǵ-mi*, Lat. *jung-i-mus*,

[5] Rich materials for the discussion of these, as for that of all present-stems formed with nasal syllables, are contained in Gustav Meyer's work, *Die mit Nasalen gebildeten Präsensstämme des Griechischen*, Jena, 1873, which for brevity's sake I shall refer to as 'G. Meyer n. Pr.'

in which case forms with and forms without a thematic vowel are often interchanged. There are several points in these processes which have not yet been clearly made out, and such of them as do not occur at all in Greek, as is the case with the peculiarity of the Skt. 7th class, we may here pass by. But thus much is unmistakable, that the linguistic instinct mixed these nasal expansions of the present-stem very much with each other. It is therefore important when dealing with the following Greek formations to notice anything at all analogous either in Greek itself or in the related languages, and specially in Sanskrit and 162
Latin.

The formation of the expanded stem in *νν* is often accompanied by an intensification of the root-vowel : *ζυγ ζευγνυ, δικ δεικνυ, παγ πηγνυ, ῥαγ ῥηγνι, κι κῑνυ, τι τῑνυ*, but it cannot be said to be the fixed rule that such is the case. In Sanskrit (cp. Delbrück, Verb. 154) there appears a faint trace of such a procedure in the Vedic *dāç-nō-ti* from the rt. *daç* (cp. *δάκνω*). Other peculiarities in the formation of these verbs are noticed by Lobeck on Buttm. ii. 68. While in Sanskrit not only roots ending in a vowel but also those in all kinds of consonants (*çak, āp, tarp, dharsh, aç*) belong to this class, in Greek it is only roots ending in gutturals, nasals, λ ρ σ, and vowels, that develope present-stems of this kind, and the λ in *ὄλλυμι* assimilates to itself the following *ν*, and conversely the *ν* of the expanding syllable assimilates a preceding *σ* (*ἔν-νυ-μι*). This limitation of an expedient which the language might have employed generally if it had wished, is a feature peculiar to Greek, and one which we shall often encounter. Elements used to expand stems, which in their origin had no closer connexion with any particular final letter of a stem than that of derivative suffixes, are found afterwards under the rule of purely phonetic analogies.

By far the larger number of the verbs in *-νυ-μι* have numerous and sometimes much more generally current by-forms in *νυω*.[6] Even this phenomenon, which does not look at first sight like a very old one, has analogies in the East. Bopp, Vgl. Gr. § 519, and Skt. Gr. § 343, notices corresponding changes of form in Sanskrit and Zend : Skt. *ā-du-nv-a-sva* (*dū* torment) for *ā-du-nu-shva*, as it might be **δεικ-νυ-ε-σο δεικνύου* for *δείκ-νυ-σο*, Zd. *kere-nîvô* (primary form *kar-nv-a-s*) for *kere-naus* thou didst make. Leo Meyer, Goth. Sprache, p. 203, gives from the Rigveda 6, 2, 6 *ṛṇvati* (=**ὀρνύει*) instead of the usual *ṛṇōti* (=*ὄρνυσι*). Many more cases of the kind may be found collected by G. Meyer n. Pr. 39 and Delbrück, Verb. 158. We may safely follow Leo Meyer and Adalbert Kuhn, the discoverer of this connexion (Ztschr. ii. 460), 163
at least in some instances, when they refer Teutonic strong verbs in *nn* to a similar source, so that Goth. *rinnan*=**ὀρνύειν*.

The individual stems may be best arranged in the following three main groups :

I. *νν* affixed without material change in monosyllabic stems, and that

α) to consonantal stems;

β) to vowel stems.

II. *νν* with a *ν* before it.

[6] Lists to show the comparative frequency of forms in *-νύω* and *-νυμι* are given by La Roche, *Ztschr. f. österr. Gymn.* 1876, p. 584 ff.

I. First Group.

a.

1) *ἄγ-νυ-μι* (break) rt. *ϝαγ*. The present-stem is pretty common in poetry from Homer onwards (M 148 *ἄγνυτον*, Π 769 *ἀγνυμενάων*), rare in prose. If we were right (Princ. ii. 158) in comparing the Skt. *bhañj* with the rt. *ϝαγ*, both verbs agree in taking the nasal.

2) *ἄρ-νυ-μαι* (get) rt. *ἀρ*, the same which is the basis of the noun-forms *ἄρ-ος* gain, *μίσθ-αρ-νο-ς*, *ἔρ-ιθο-ς* (Princ. i. 425). A 159 *τιμὴν ἀρνύμενοι* (cp. *α* 5), *ἀρνύσθην* 3rd du. X 160, *τοιάδ' ἄρνυμαι* Soph. Ant. 903, in prose only used in the phrase *μισθὸν ἄρνυσθαι* (Plato Prot. 349 a). It has no connexion whatever with *αἴρω*, *ἀείρω*.

3) *ἄχ-νυ-μαι* (grieve), one of the many present forms of the rt. *ἀχ*, which makes also *ἄχ-ο-μαι* (*σ* 256, *τ* 129), *ἄχ-θ-ο-μαι*, *ἀχ-εύ-ω*, and in a causative sense *ἀκ-αχ-ίζ-ω* (cp. *ἤκαχον*). *ἄχνυτο δέ σφιν θυμός* Ξ 38, commonest of all *ἀχνύμενος*, which shows a relic of itself in *ἀχνυμένως* in Soph. Ant. 627. Late poets formed from *ἀχνυ* a passive aorist *ἀχνύνθην* Anth. vi. 343. It is a purely poetical verb. Numerous instances of the insertion of a nasal in the middle of this root (Skt. *aṃh-ú-s*, Germ. *eng* narrow, Lat. *ango*) are given at Princ. i. 234.

4) *δείκ-νυ-μι*, one of the few verbs of this formation which is common to all Greek. The pure rt. *δικ* occurs in Greek only in *δίκ-η*, but is just as evident in the Skt. *diç* and the Lat. *dĭc* (*causi-dĭc-u-s*), while the
164 verbal forms are made throughout from the intensified *δεικ* (Princ. i. 165). The latter is in the New-Ionic dialect partially attenuated again to *δεκ* (*δέξω*, *ἔδεξα*), but preserved in the present-stem: *δεικνύς* Herod. ii. 78, so that here there is a fresh pair of short and long roots, *δεκ* and *δεικ*. There is not a trace of nasal expansion anywhere but in Greek. In Greek itself we may compare *δεικ-αν-ά-ο-μαι*.

5) *δέχ-νυ-μι*, quite a late by-form of *δέχ-ο-μαι*. Parthenius Bekk. Anecd. 1385 b, Orphica Lith. 692, mostly found in the imperative *δέχνυσο*.

6) *εἴργ-νυ-μι* by the side of *εἴργω*. In Homer we find the imperf. *ἐέργνυ* κ 238 *κατὰ συφεοῖσιν ἐέργνυ*, where it is impossible to say whether the first *ε* is an augment or a prothetic vowel before a lost digamma. In any case *εἴργνυμι*, which occurs in Herodotus and in Attic prose (Plato, Tim. 45), presupposes *ἐ-ϝεργ-νυ-μι*. The corresponding Sanskrit root *varj* likewise makes its present by a nasal expansion: *vṛ-ná-j-mi* (Princ. i. 222).

7) *ζεύγ-νυ-μι*, like *δείκνυμι* in frequent use with Greeks of all times and all tribes, is the primitive Indo-Germanic verb for the yoking and harnessing of horses (Princ. i. 223). A present formed by nasal expansion occurs in Skt. (*ju-ná-j-mi*) and Lat. (*ju-n-g-o*) as well.

8) *θόρ-νυ-μαι* (copulate) first occurs in Nicander Ther. 130, as a by-form of *θρώσκω*, the conj. *θορνύωνται*, which might belong either to *θόρνυμαι* or *θορνύομαι*, in Herod. iii. 109.

9) *καθίγνυσθαι*. So Lobeck (on Buttmann, ii. 68) writes the word which occurs in several passages of Hippocrates (Mul.), and always with the var. lect. *καθίννυσθαι*, and others follow him in so doing. No one can doubt that the word with the meaning *κατακλίνειν*, *καθίζειν*, is connected with the rt. *ἑδ*. In spite of this Lobeck thinks the connexion

with *ἰγνύς*, *ἰγνύα*, poples, probable, in the sense of ingeniculare. The two views are incompatible. For the latter words clearly belong to *γόνυ*, and no evidence can be shown for the change of the undoubtedly primitive *δ* in the rt. *ἑδ* to *γ*; and besides the breathing of *ἰγνύς* does not suit that of the verb in question. Everything points therefore to the reading *καθίννυσθαι* with *ι* for *ε* as in *ἰδ-ρύ-ω* and *ἵζω* (cp. Westphal. Method. Gr. ii. 163). To this we may add Hesychius's glosses *ἴννεν* (M.S. *ἰννοιεν*)· *ἐκαθέζετο*, and *ἰνύεσθαι* · *κοσμεῖν*, *ἱδρύεσθαι*. There is no analogy to this formation in the related languages, and moreover this would be the solitary instance of the addition of the syllable *νυ* to a dental explosive. May it not even be possible that *καθίν-νυ-μι* arose out of *καθιζ-νυ-μι*? A similar addition of a nasal expansion to the already expanded present form took place in *καθιζάνω*. In that case the verb would be analogous to the comparatively late forms in *νν* to be discussed below. I cannot see the force of Joh. Schmidt's new explanation of the form (Ztschr. xxiii. 298). 165

10) *μίγ-νυ-μι*, the later present-form of the rt. *μιγ*, first found in Pindar, then in Attic writers, for which Homer has *μίσγω*. The *ι*, as Lobeck shows (Paralipp. 414), was long, and who can say that *Μειξίας*, *Μειξιάδης*, for which there is the testimony of inscriptions, were not the older forms of the names? *μείγ-νυ-μι* : *μιγ* : : *δείκ-νυ-μι* : *δικ* (Princ. i. 417).

11) *οἴγ-νυ-μι*, B 809 *πᾶσαι δ' ὠΐγ-νυ-ντο πύλαι*, then Attic along with *οἴγω* in compounds. The origin has not been clearly ascertained; all that we can be sure of is that *ϝ* was the original initial. Cp. above, p. 81.

12) *ὄμ-νυ-μι*, in general use from Homer onwards, though there are frequent by-forms in *νυ-ω*. The origin of the word is obscure.

13) *ὀ-μόργ-νυ-μι*. E 416 *ἀπ' ἰχῶ χειρὸς ὀμόργνυ*, λ 527 *ἄκρυα δ' ὠμόργνυντο*, of isolated occurrence in Attic. Compare the Ved. 3rd plur. mid. *mṛ-n-ǵ-a-ta*, Gust. Meyer n. Pr. 19. The rt. *marg* has by means of a difference in the vowel and in the formation of the present, split up into two stems of different meaning, Princ. i. 226.

14) *ὀ-ρέγ-νυ-μι*, only A 351, X 37 *χεῖρας ὀρεγνύς* and in later poets (Moschus, Anthol.) *ὀρεγνύμενος*, while *ὀρέγω* (along with *ὀρεχθέω*) remains the usual form of the present. Another kind of nasal expansion of the rt. is to be seen in *ὀριγ-νά-ο-μαι* (Hes. Scut. 190, Eurip. Theocr.), by the side of which there is a doubtful trace (Pollux v. 165) of an *ὀρίγ-να-μαι* or *ὀρίγνομαι*. *ὀριγνάομαι* bears to *ὀρέγνυμι* a relation similar to that of *δεικανάομαι* to *δείκνυμι*. The corresponding Skt. rt. *arǵ* forms the 1st sing. mid. *ṛ-ñ-ǵ-ḗ* in an analogous way (Princ. i. 226).

15) *ὄρ-νυ-μι* from Homer onwards (*ὄρνυθι*, *ὀρνύμεναι*, *ὦρνυτο*) in poetry, entirely corresponding to the Skt. *ṛ-ṇó-mi* (Princ. i. 432). In *ὀρίνω* there is another kind of nasal expansion, which however we ought probably to refer to *ὀρ-ι-νύ-ω*. Other present-formations are *ὀρ-έ-ον-το* (cp. *orîrî*), *ὀρούω*, *ὀρο-θ-ύνω*. 166

16) *πήγ-νυ-μι*. Homer, who constantly has *ἔπηξε*, *ἐπάγη*, *πέπηγε*, has no forms of the present-stem. *πήγ-νυ-σι* Aesch. Pers. 496 and after him repeatedly. The by-form *πήττω* is not found till after Alexander. The Lat. *pa-n-g-o* shows an analogous expansion of the present.

17) *πλέγ-νυ-μι*. The only form found is *πλεγ-νύ-μενος* in Oppian Cyneg. iii. 213, Halieut. i. 311. Elsewhere the pres. is always *πλέκω*. In spite of this the Skt. *pṛ-ṇá-k-mi* (Princ. i. 203) suggests the conjecture

that the late form rests on an old tradition, for πλέγνυμι : *pṛṇáḱ-mi* :: ζεύγνυμι : *junáǵmi*.

18) πλήγ-νυ-μι, only preserved in ἐκπλήγνυσθαι Thuc. iv. 125, and yet it must be of early origin, since a nasal appears also in the related πλάγχθη (Princ. i. 345) and in the Lat. *plango*.

19) πτάρ-νυ-μαι, Attic; Homer has only ἔπταρον; a later present is πταίρω. The Lat. *ster-nu-e-re*, frequentative *sternutare*, proves that this expansion of the present is of old standing. This is the only instance in which Latin has preserved the syllable *nu* (Princ. ii. 372). Cp. Bugge Ztschr. xx. 37.

20) ῥήγ-νυ-μι, occurring from Homer onwards (3rd plur. ῥηγνῦσι P 751, ῥηγνύμενος, ῥήγνυτο, ῥήγνυντο). ῥήσσω, used in Homer (Σ 571) and elsewhere in the sense of *pulsare*, has certainly nothing to do with it (Lobeck on Buttmann ii. 287), but in Hippocrates and Diodorus ῥήσσω occurs with the meaning of ῥήγνυμι (cp. πήττω, πλήσσω). If it is right to connect ῥήγνυμι with *frango* (Princ. ii. 159, otherwise Fick Wtb. i.[3] 772), we have in the latter an analogous expression.

21) στόρ-νυ-μι is related to the Skt. *stṛ-ṇó-mi* (by-form *stṛ-ṇā́-mi*) exactly as ὄρ-νυ-μι is to *ṛ-ṇó-mi*. Add to these the Lat. *ster-no* (Princ. i. 265). In Homer καστορνῦσα ρ 32. The verb is found besides in the tragic and comic dramatists, in Herodotus and in Xenophon, with the Attic by-form στρώννυμι with metathesis like that in the Lat. *strā-tu-s*,
167 while στορ-έ-νυ-μι was developed at quite a late period (only found in the Schol. on Theocr. 7, 59) from forms like ἐστόρεσα.

22) φράγ-νυ-μι, an isolated by-form of the usual φράσσω, Thuc. vii. 74 ἀπεφράγνυσαν, Soph. Antig. 241 κἀποφράγνυσαι (Dind. ἀποφάργνυσαι, cp. Siegismund, Stud. v. 159). In Homer there is no present-stem to φράξε, φράξας, ἐφράχθην, cp. Princ. i. 376.

23) φώγ-νυ-μι, only found in Dioscorides (φώγνυται), elsewhere φώγω.

β.

24) αἴ-νυ-μαι only in poetry, from Homer onwards: ἀπο-αίνυται N 262, ρ 322, αἰνύμενος ι 429, χ 500, ἀποαίνυτο μ 419, ἀπαίνυτο O 595. Beyond the present-stem no forms are in use. The very general notion that this verb belongs to αἱρέω is hardly tenable, for the root of αἱρέω is ϝαρ (by-form ϝελ), and it is hardly possible to get from *ϝαρ-νυ-μαι to αἴνυμαι. The hiatus in ἀποαίνυμαι does certainly entitle us to give the word an initial ϝ, but ἔξαιτος, αἰτέω (a frequentative to αἴνυμαι) also belong, so that we cannot say more than that the stem was either αἰ or ϝαι.

25) γά-νυ-μαι, in poetry, from Homer onwards, γάνυται N 493, γάνυνται μ 43. The present-stem is also used to form the future: γανύσσεται Ξ 504. There is no doubt that the root is the same as that of *γη-θ-έ-ω, γα-ί-ω (cp. Princ. i. 211), perhaps also as that of γά-νος and γα-νάω shine.

26) γί-νυ-μαι on an inscription from Aegosthena, edited by Boeckh, Monatsber. der Berl. Akad. Nov. 1857 (Princ. i. 215). Cp. below κτίννυμι.

27) δαί-νυ-μι, Homeric (δαινύντα δ 3, δαινῦ 2nd imperat. and 3rd imperf.) in the middle (δαίνυται O 99) it occurs also in other poets and in Herodotus, 1 aor. ἔδαισα, ἐδαισάμην, related to δαίω, δαίομαι, δαίς, δαι-

τυμών (Princ. i. 285). The rt. is δα, and the ι is itself an expansion of the present-stem to which the νυ is subsequently added as a second.

28) καί-νυ-μαι only Epic (γ 282 ὃς ἐκαίνυτο φῦλ' ἀνθρώπων νῆα κυβερνῆσαι, ἀπεκαίνυτο θ 127). The more generally diffused forms κέκασμαι, ἐκέκαστο, κόσμος, lead us to the conclusion that the root had a consonant at the end. Still it is by no means clear what relation the diphthong bore to the α.

29) κί-νυ-μαι. Hom. κῑνύμενος Κ 280, κίνυντο Δ 281, and then not 168
till late poets. The form in general use is κινέω. The Skt. *çi-nu-té* is identical with κί-νυ-ται except that the root vowel in the Skt. word is short. The present κί-ω (by-form κῑ-α-θ-ο-ν) is of a shorter formation.

30) τά-νυ-ται, just like γά-νυ-ται, only at P 393, but τα-νύ-ω is much commoner. The syllable νυ makes its way into the structure of other tenses as well: τάνυσσα (τάνυσα), τετάνυσται, τάνυσθεν. τά-νυ-ται corresponds exactly to the Skt. *ta-nu-té*, though as a rule this is divided thus, *tan-u-té* (8th class). But, as Bopp saw (Skt. Gr. § 343), the present-expansion does not consist in *u* but in *nu*. Whether, as he supposes, the root had a final *n* as well, so that *ta-nu-té* is for *tan-nu-té*, or whether the root of this word is the shorter *ta*, may be left an open question (Princ. i. 267). In Zend too there is a 1st sing. pres. *tanva* or *tanava* (Justi Handb. 131), exactly identical with τανύω. The more general forms of the present are τείνω and τιταίνω, each with a slightly distinct meaning.

31) τῑ-νυ-μαι. τίνυνται Τ 260, Γ 279, τῑ-νύμεναι Eurip. Or. 323, τίνυσθαι Hdt. v. 77. The length of the ι is of just the same kind as in κίνυμαι (29). Perhaps this word had originally the diphthong, which is actually found in τειμή, τείσω, on old inscriptions which show no itacism of any kind, and in many other words as well (ἀποτεισεῖ tabb. Heracl. i. 109, Meister Stud. iv. 387). Buttmann's view that we ought to write τίννυμαι (Ausf. Gr. ii. 69) rests on mistaken premises. We may compare the related Skt. *kī-nō-mi*, and *ci* the corresponding present in Zend (cp. Princ. ii. 93). τίνω, with the simpler τίω (Arcad. ἀπυτειέτω, cp. Joh. Schmidt Vocal. i. 142), is closely connected with τί-νυ-μαι.

32) ψαί-νυ-μι, only known to us from Hesych.: ψαι-νυ-ντες. ψωμίζοντες, cp. ψαῖ-μα· ὀλίγον, ψαί-νυ-σμα· ὀλίγον, ψι-νύ-θ-ιο-ν· φλαῦρον, ψεῖ-σαι· ψωμίσαι. The root is the same as that of the verbs ψάω, ψαίω, and the adj. ψῑ-λό-ς. Cp. δαίνυμι no. 27.

II. νυ WITH AN ν BEFORE IT. 169

α) Where the first ν is evidently assimilated from σ.

33) βδέν-νυ-σθαι, found in Suidas with the meaning βδεῖν. The rt. is βδες, cp. Princ. i. 284.

34) ἔν-νυ-μι. In Homer this present-form (κ 543, ζ 28, ξ 522) is sometimes replaced by εἵ-νυ-μι (κατεείνυσαν Ψ 135). The latter, which is also New-Ionic (Hdt. ἐπείνυσθαι), came by compensatory lengthening from ἔννυμι as εἷμα from the Aeol. ϝέμμα. There is the same inconsistency between ἐννοσίγαιος and εἰνοσίφυλλος. With Attic writers the older form held its ground in ἀμφιέννυμι. The rt. is ϝες (Lat. *ves-ti-s*). Cp. Princ. i. 470, and Leskien, Stud. ii. 85. The corresponding rt. in Skt. *vas* forms its present-stem in a different way. Whether in the

Zend *vañh* the nasal, which remains throughout, is to be compared with the syllable *νυ* I leave an open question.

35) *ζέν-νυ-μι* as a by-form of *ζέω* is only found in Alexander of Aphrodisias and Dioscorides. The rt. is *jas* (Princ. i. 471), and there is no analogy for this kind of expansion of the present-stem.

36) *σβέν-νυ-μι*. Homer's forms are all from other stems than that of the present (*σβέσεν*, *σβέσσαι*, *ἔσβη*, *ἄσβεστος*), but from Hesiod onwards *σβέννυμι* (*σβεννύω*) is in general use. The *ει* in the gloss *ζείνυμεν· σβέννυμεν* Hesych. is of the same nature as that in *εἶνυμι*, while *ἀποξίνυται· ἀποσβέννυται* (cp. *ἐξίνει· ἀπεσβέννυει*) reminds us of *ἵννυμι* (no. 9), and *κτίννυμι* (no. 38). The root is obscure (Joh. Schmidt, Ztschr. xxiii. 300, Fick, i.^{3} 603).

β) The remaining dissyllabic present-stems in *νν*.

37) *ζώννυμι*, from Homer onwards (*ζώννυνται ω* 89, *ζώννυτο* K 78, *ζωννύσκετο* E 857). A shorter form of the present appears in *ζούσθω· ζωννύσθω* (Hesych.) i.e. *ζο-έ-σθω*. The root is apparently *ζως* (cp. *ζωστήρ*), and this to be compared with *jas*, which is deducible from the Zend and Slavonic words given at Princ. ii. 263. The intensification of the root-vowel is like that in *πήγνυμι*, *δείκνυμι*.

38) *κτίν-νυ-μι*, post-Homeric, often with the variant *κτείννυμι* (Kühner, p. 854) in good M.SS. It is clear that the more usual *κτείνω*
170 has helped to make confusion here. Buttmann (Ausf. Gr. ii 227 note) is wrong in pronouncing for *κτείννυμι* and comparing the *ει* to that of *δείκνυμι*, for the latter has arisen by intensification from *ι*, while *κτίννυμι* has for its root *κτα* (*ἀπέκτα*, *κτάμεναι*), *κταν*, *κτεν* (Aeol. *κτέννω*). *κτεί-νυ-μι* could only be a formation made from *κτείνω* after this verb had come into use (cp. *ἰζάνω*). That *κτίννυμι*, however, is a very early form is proved by the synonymous Skt. *kshaṇṓmi* (Princ. i. 192); it must stand then for **κτέν-νυ-μι*, with weakening of *ε* to *ι* as in *πίτ-νη-μι* and similar formations. Cp. Gust. Meyer, n. Pr. 33.

39) *ῥώννυμι*. The forms of the present-stem are not found before Hippocrates, the Locrian Timaeus and writers of the Roman period. As present to the universally common *ἔρρωσα*, *ἔρρωμαι*, *ῥώμη* Homer has only *ῥώεσθαι* wave, strive, for the derivation of which from the rt. *ῥυ* I have given reasons at length at Princ. i. 440. At the same place attention is called to the difficulties which are in the way of Kuhn's comparison of *ῥώννυμι* with the Skt. *rādh-nṓ-mi* (thrive, succeed) in respect of the meanings of the two words. We can hardly venture, therefore, to discern in this present-form an analogy to that of the Greek. Is it possible that *ῥω* came from *ῥως*, and is thus an expanded form of the intensified rt. *ῥυ*? Cp. Princ. i. 83. We have not yet arrived at a certain explanation of the *νν*.

40) *στρώννυμι* cp. *στόρνυμι*, no. 21. We are still further here from finding a reason for the first *ν*. Possibly the double *ν* owes its existence here and in *ῥώννυμι* and in the next verb only to the analogy of *ζώννυμι*.

41) *σώννυμι* is only inferred from *σωννύω* with the meaning of *σώζω*, which is given in Bekker's Anecd. p. 114 from the Sicilian comic poet Deinolochus. The form is remarkable inasmuch as *σωννύω* as well as *σώζω* (for *σω-ίζω*, and hence it should be written *σῴζω*) is a denominative from *σῶος*.

42) *τρώννυμι* for the usual *τιτρώσκω*, only inferred from *τρωννύω* given by late grammarians (Lobeck, Rhem. p. 208).

43) *χρώννυμι* occurs first in Lucian and Themistius as a by-form of the usual *χρώζω*.

44) *χώννυμι* for the older *χόω* (Hdt., Thuc.) from the rt. *χυ* (*χέω* cp. *χοῦς*) seems to be not older than Hadrian's time (Arrian, Dio Cassius), 171
while *χωννύω* is found as early as in Polybius. It is thus in just the same case as *χρώννυμι*. As both verbs have a *σ* in the passive aorist (*ἐχρώσθην*, *ἐχώσθην*), it is possible that the first *ν* is a transformed sibilant.

A quite isolated position is held by—

45) *ὄλλυμι*. It comes, as everybody admits, from *ὀλ-νυ-μι*, and thus has experienced a forward assimilation, the reverse of the backward assimilation noticed in *ἔν-νυ-μι*. The present-stem *ὀλλυ* is in general use from Homer onwards (*ὀλλύντα*, *ὀλλύντας*, *ὀλλυμένους*). By-form *ὀλέω*. The Lat. *ab-olē-re* is related (Fick, Ztschr. xxi. 3, Gust. Meyer n. Pr. 34).

γ) *νν* added to stems already dissyllabic.

In answer to the conjectures of Kuhn (Ztschr. ii. 469) and Benfey (viii. 93), who connect the following class of verbs with Sanskrit adjectival stems in *snu* or *shnu*, Leskien (Stud. ii. 110) has rightly pointed out that all these forms are post-Homeric, and in some cases—like several of those treated already—of very recent date,[7] and for that reason not likely to reproduce types of primitive antiquity. It is clear, however, that the first *ν* in these stems stands in some relation to the *σ* which appears in the structure of the other tenses of all verbs of this class. *κορέν-νυ-μι* is related to *ἐκορέσθην* as *σβέννυμι* is to *ἐσβέσθην*. In the case of *χρώννυμι*, and *χώννυμι* too, we felt compelled to see a connexion between the first *ν* and *σ*. We shall have to deal in Chap. XXI. with the growth of a sigma at the end of stems. This class is composed of the following six verbs:

46) *κεράννυμι* from Plato onwards. Homer's presents to aorist-forms like *κέρασσε* (*ε* 93), *κεράσασα* (*κ* 362), by the side of *ἐπι-κρῆ-σαι* (*η* 164), are *κερα-ί-ω* (*κέραιε* I 203), *κεράω*, *κέραμαι*, *κίρνημι* (*κίρνη ξ* 78), *κιρνάω* (*ἐκίρνα η* 182). On its derivation and its connexion with *κέρα-μο-ς* cp. Princ. i. 181, Fick, Wtb. 204 (Skt. *sam-kir-á-ti* he mixes).

47) *κορέννυμι*. Veitch (p. 333) cites Themistius as the oldest witness 172
to this form, while the fut. *κορέω*, the aorists *κορέσαι* (*κορέσσαι*), *κορεσθῆναι* and other forms are in use from Homer onwards. The present has a by-form *κορέσκω* (Nicander, Hippocr.).

48) *κρεμάννυμι*, since Plato, while *κρέμασε*, *κρεμάσας* are as early as Homer; the middle *κρέμα-μαι* occurs from Homer onwards (*ἐκρέμω* O 21), and Pindar, Eurip. and Aristoph. have *κρήμ-νη-μι*. There is nothing in the origin of this verb to explain the formation (Princ. i. 190).

49) *πετάννυμι* since Aristophanes (Lys. 733) as present to the already long-established *πέτασα*, *πετάσσας*, *πετάσθην*, but generally it prefers to follow the analogy of the thematic conjugation (*πεταννύω*). The by-

[7] Gust. Meyer n. Pr. 37 calls attention to *κατ-ε-κεντάννυτο* (= *κατεκεντεῖτο*) and *ἐπι-πωμάννυμι* (= *ἐπιπωμάζω*), remarkable coinages of a late age found by Lobeck (Rhem. 208) in late prose writers.

form *πίτνημι* is as early as Homer, the middle *πέταμαι* is first found in Pindar. The noun *πέτασμα* is note-worthy on account of its *σ*.

50) *σκεδάνυμι*: the first sure instance is in Xenophon, while the Homeric present to the fut. *σκεδῶ*, and *ἐκέδασσε* (P 285), *ἐκέδασθεν* is *σκίδ-νη-μι* (*διασκιδνᾶσι*, *κίδναται*). Hesych. has the gloss *κεδᾶται· σκεδάννυται*. *κεδάομαι* may have been formed in the same way as *κεράωμαι* (*κεράασθε γ* 332). The rt. *σκεδ* comes in its vowel nearest to the Skt. *skhad* and *khad*, but *khid* is undoubtedly nearly related (Princ. i. 305), which has nasal expansion in Skt. (*khi-ná-d-mi*) and Latin (*sci-n-d-o*).

51) *στορέννυμι* has been already mentioned at nos. 21 and 40.

χρήννυμαι, which is cited by Lobeck (Rhem. 208), has no authority whatever. It rests only on a conjecture in Theophrastus, Char. v. for *χρὴ νῦν ἀεί*.

c) Present-stems made by the addition of the syllable *να*.

The 9th class of verbs in Sanskrit, which, according to Delbrück (Altind. Verbum, p. 151) includes 44 regularly inflected roots, affixes the syllable *na* to the root as its characteristic distinction. It is only in the 3rd plur., as a rule, that it appears unaltered, e.g. *str̥-ná-nti* (cp. Dor. *πίτ-να-ντι*), in the singular the *na* is lengthened to *nā*, e.g. *str̥-ṇá-mi* (cp. Dor. *πίτ-νᾱ-μι*), and in the remaining persons there appears the
173 specially Indian form *nī*, which is regarded as a weakening of *nā*, e.g. 1st plur. *str̥-ṇī-más*. The considerable number of such present-stems in Sanskrit is confronted by a very small number of presents in Greek—only seven—in which the syllable *να* really seems to make the present-stem, and to these may be added two verbs in which this syllable, like the *νυ* in several cases cited above under nos. 25 and 30, and like the isolated instance of the reduplication in the Homeric *διδώσω*, has become fast attached to the verb-stem for all tenses. Only two verbs (4 and 9) correspond to an Indian verb with a similarly formed present. Still there are several cases of coincidence with Sanskrit verbs which follow the 7th or the 5th class. If Bopp is right (Vergl. Gr. § 497, Schleicher Compend.[3] 752) in conjecturing that the 7th class in Skt. owes the *na* which is inserted in the middle of its root to the transposition of this syllable from the end of the root which was its original place, that consequently e.g. *khi-ná-d-mi* arose out of **khid-nā-mi*, the Greeks would then have preserved in *σκίδ-νη-μι* the older form, and this would make the coincidence more complete still. The agreement between the languages is increased moreover by the verbs with a thematic vowel like *κάμνω*, *τέμνω*, which, as will appear, arose out of verbs of the formation now under consideration. Finally the thematic verbs in *ανω* also distinctly reveal their relationship to those of this class, inasmuch as a number of verbs of the 9th Skt. class make by-forms in *-ana* or *-āna* instead of *-nu*, mostly imperatives (2nd sing.), e.g. *aç-āna* eat thou, but here and there indicatives as well, e.g. from the rt. *ish* fling, brandish, 2nd sing. pres. *ish-ná-si*, while the 2nd sing. impf. is *ishana-s*, 3rd sing. *ishana-t*, 3rd plur. mid. *ishaná-nta* (Delbrück, p. 154). Both *na* and *ana* are common suffixes used apparently here, as was the case with the present-stems in *nu*, to denote the person acting. On this supposition we have in *dam-ana-s* the counterpart of the Lat. *dom-inu-s*. If we suppose a by-form *damna* (cp. *τοξό-δαμνο-ς* Eurip.), *δάμ-νη-μι* will then

bear a similar relation to the forms made directly from the rt. δαμ (e.g. ἐ-δάμ-η-ν) as that of *dominari* to *domare*. Benfey is mistaken, I think, in his attempt to make out that the forms in *-nā-mi* are real denominatives, that is, are derived by the help of the syllable *ja* from nominal stems and are consequently curtailed from *-na-jā-mi* (Orient u. Occident, i. 425). Greek distinguishes forms like δάμνᾰται, κίρνᾰμεν, πίτναντο in 174
the clearest possible way from contracted forms which correspond to those of the Skt. verbs in *ajāmi*. I see no necessity whatever to regard forms of so antiquated a stamp as already violently reduced in length, and forms like δαμνάω, πιτνάω etc. on the other hand, whose general acceptance we can see to have been of gradual growth, as the older of the two kinds. The analogy of δείκνυμι and δεικνίω also makes against Benfey's view. Schleicher Comp.[3] pp. 779, 784, 788 gives the Slavonic and Teutonic analogies to the present stems in *na*, in which the vowel, as in κάμνω etc., has become entirely thematic (Ch.-Sl. *sta-nǫ*, Lith. *ei-nù*, Goth. *fraíh-na*).

α) να in the present-stem only.

1) δάμ-νη-μι. Common from Homer onwards (δάμνημι Ε 893, δάμνησι α 100, δάμναται ξ 488, δάμνατο Λ 309) in poetry with by-forms in -νάω (δαμνᾷ λ 221, ἐδάμνα Ε 391). There is also a present δαμάζω, in Skt. *dām-jă-mi*, *dama-jă-mi* and in the Rigveda an isolated *daman-jā-mi*, the latter form (cp. ἀλιταίνω) with a similar nasal expansion and the syllable *ja* as well (Princ. i. 287).

2) κίρ-νη-μι, a present to κεράσαι etc. of an older formation than κεράννυμι under which (no. 46 in the preceding class) it has been noticed already. Attic poets used these forms, e.g. ἐκίρνατο, even after those in νυμι had come into general use.

3) κρήμ-νη-μι, κρημ-νά-ντ-ων Pind. Pyth. 4, 25, κρημναμενᾶν νεφελᾶν Aesch. Sept. 229. Cp. no. 48 of the last class. The η of the root-syllable suggests κρημ-νό-ς, between which then and κρήμνημι there is a relation like that which we supposed between **dam(a)na-s* and δάμνη-μι.

4) πέρ-νη-μι, poetical from Homer onwards (περνάς Χ 45, πέρνασκε Ω 752, περνάμενος Σ 292). The remaining tenses have to choose between the stems περα (ἐπέρασσε, περάσας) and πρα (ἐπράθην). Another present is πιπράσκω. πρ-ία-σθαι too is clearly related. An analogous formation is the Skt. *páṇa-tē* for *par-na-tē*, he buys, wagers=πέρναται (Princ. i. 339). Hesych. has the gloss. πορ-νάμεν· πωλεῖν, apparently from an Aeolian dialect.

5) πίλ-να-μαι, only Epic (πίλναται Τ 93, πίλνατο Ψ 368). By-forms 175
πελάω, πελάθω. Weakening of ε to ι as in κίρνημι and the two following verbs.

6) πίτ-νη-μι, poetical from Homer onwards. πιτνάς λ 392, πίτναντο Χ 402, πίτναν=ἐπίτνασαν Pind. Nem. 5, 11. The impf. πίτνα Φ 7 belongs to πιτνάω, cp. κίρνα, ἐδάμνα.

7) σκίδ-νη-μι has been already noticed under σκεδάννυμι (no. 50 of the last class) as an older present. Of the Attic writers Thucydides alone appears to have admitted it: ἀποσκίδνασθαι vi. 98.

β) να which has firmly established itself in the verb.

8) δῦ-να-μαι, common to all Greek (3rd plur. impf. Hdt. ἐδυνέατο)

and from Homer onwards with firmly established *να* (*ἐδυνήσατο*, *δυνατός*, *δύνασις*, *δύναμις*, *ἐδυνήθην* and *ἐδυνάσθην*, the latter at Ψ 465, *μέγα δῦναμένοιο* only *α* 276, λ 414). On the analogy of all the words of this class the root syllable must be *δυ*. Is it not possible that it may be identical with that of *δύω*, *δύνω*, *δυιέω* (Hdt.), and that *δύναμαι* is really equivalent in its original meaning to *ὑποδῦναι*, *ὑποδύεσθαι* in the sense of subire, put oneself under an obligation, undertake? When Xenophon says (Oec. xiv. 3) *ἦ καὶ ταύτην τὴν δικαιοσύνην σὺ ὑποδύει διδάσκειν*; *ὑποδύει* is not so very far from *δύνασαι*. A similar suggestion was made by Damm in his Lexicon Homericum s. v. *δύναμαι*. Delbrück, p. 79, compares the Skt. *ju* draw to oneself, get into one's power.

9) *μάρ-να-μαι*, poetical from Homer's time (*μάρναο* Ο 475, *μαρνάμενος*, *μάρνατο*, *μάρναντο*), only in the present-stem. Hesychius has the presumably Aeolic by-form *μόρ-να-μαι* (cp. *πορ-νά-μεν*). A precisely similar formation is the Skt. *mṛ-ṇā́-mi* maim, strike dead (Princ. i. 406).

Finally we ought perhaps to add *βερνώμεθα· κληρωσώμεθα Λάκωνες* which looks just like a conjunctive to the indic. **βερνάμεθα*, and at the same place we find the enigmatic infinitive *βέρρεαι· κληρῶσαι*, possibly a mistake for *βέρραι* i.e. *ϝερ-σαι*. The words strongly suggest the Skt. *var* (*vṛ-nṓ-mi*) choose.

176 B) Stems which are always Dissyllabic.

What distinguishes this division from the preceding is the fact that in the case of the stems now to be discussed the special present-formation has nothing whatever to do with making the stems dissyllabic. It is true that we can here often arrive from the dissyllabic stems at a monosyllabic root, but we must seek some other origin for the second syllable. What this origin is it is often hard and sometimes impossible to say. We will first enumerate the stems of this kind, arranging them according to their final letter, and try at the end if not thoroughly to explain how they come to be dissyllabic, at least to classify them according to the main features of the process by which they became so.

a) Stems in *α*.

1) *ἀγα*, one of the commonest stems of this kind from Homer on to the time of the Attic prose-writers (*ἄγαμαι* Ψ 175, *ἠγάμην* Plato Rep. 367 e). The present has the by-forms *ἀγαίομαι* (*ἀγαιομένου κακὰ ἔργα* *υ* 16), *ἀγάζω* (Aesch. Suppl. 1062), *ἀγάομαι* (*οἵ τε θεαῖς ἀγάασθε παρ' ἀνδράσιν εὐνάζεσθαι* *ε* 119). Buttmann Lexil. i. 236 has given a good account of the history of this stem. The fundamental notion, as in *μεγαίρω* (from *μέγας*) is rate high, esteem, hence the further meaning of marvel, wonder at, but also of envy, grudge. Throughout the remaining formations the second *α* remains short except in *ἀγητός*. This fact and the double *σ* in *ἀγάσσατο* P 71, lead Leskien, Stud. ii. 113, to assume a stem *ἀγας*. Anyhow *ἄγαμαι* must be related to *ἄγαν* and *ἀγανός*, *ἀγαυ-ρό-ς*. Cp. Princ. i. 211.

2) *δεα* with the by-form *δοα*, both, as I have shown at Princ. ii. 195 f., to be referred to the primary form *δϝα*, which in turn is to be regarded as an expansion of the rt. *div* appear, shine. *δεάμην· ἐδοκίμαζον*, *ἐδόξαζον* (Hesych.), *δέα-το* ζ 242, *δέᾱται* conj. pres. on a Tegeatic inscription (above p. 61). Aor. *δυάσσατο* Ν 458, Ξ 23, *ε* 474 etc.

3) *ἐα* for *ἐσα* is the basis of some of the forms of the preterite of the rt. *ἑς*, for instance of the 1st sing. *ἧα* or *ἔα* (=Skt. *āsa-m*), *ἧα* E 808, *ἔᾱ* Δ 321, Hdt. ii. 19, whence the contracted old-Attic *ἦ*. For the 2nd sing. Hdt. has *ἐᾶς* (i. 187). In this way alone is it possible to account 177
for the *ν* of the 3rd sing. For an *ν* after a vowel that had always been long we could at most only find an analogy in *χρῆν* (discussed above, p. 92). *ἦι(ν)* is to *ἧα* as *ἔδειξι(ν)* to *ἔδειξα*. The plural *ἔατε* is found only in Hdt. (iv. 119, v. 92). To the same class of forms also must belong the imperative *ἧτω* for **ἐάτω* cited from Hippocrates. The stem *ἐα* then became in time *ἐο, ἐε*, that is, the *α* adopted the analogy of the thematic vowel: *ἔοις, ἔον*, and in all Greek *ἐών* (st. *ἐο-ντ*), just as beside the forms like *ἐάμεν-μεν* discussed above, there arise such forms as *ἔ-δαμεν-ον*, which we shall come to later (*ἐδάμαζον* Hesych. Gust. Meyer n. Pr. 41). A special group among the preterite forms is made by those with a long second vowel, which occur exclusively in Homer and Hesiod (Rzach Dialekt des Hes. 456): 2nd sing. *ἔη-σθα* X 435, *π* 420, *ψ* 175, 3rd sing. *ἔη-ν* or *ἦεν*. The genuineness of these forms has been questioned by Leo Meyer Ztschr. ix. 386, and by myself, Stud. i. 2, 293. For *ἔησθα* we might easily write *ἔεσθα* and for *ἔην*, in far the greater number of passages, *ἔεν*. Hartel in his Homer. Stud. i. 46 has defended the received forms, and I have replied to him in my Stud. iv. 478. It must be granted that three passages (*τ* 283, *ψ* 316, *ω* 343) will only admit of *ἦεν*, and that the lengthening of the second syllable of *ἔεν* in several instances would be very remarkable, and further that a support can be found for *ἔην, ἦην* in the Lat. *erā s, erā-mus*, and possibly too in the Skt. *āsī-t* which seems to have come from an **āsā-t*. The length of the vowel would of course be of the same kind as in *ἴλη-θι, ἐτίθη-ν*. Only the *ν ἐφελκυστικόν* after a long vowel which is not the result of contraction is without a parallel.

4) *ἐρα*. *ὡς σέο νῦν ἔραμαι* Γ 446, *Ξ* 328, *ἠράμαν* Sappho, then in Pindar and Attic poets, with the by-form *ἐράομαι* (Π 208 *ἕης τὸ πρίν γ' ἐράασθε*), that is, just like *ἄγαμαι*. *ἠράσατ'* Π 182 like *ἠγάσατο, ἠράσαντο* Υ 223 like *ἀγάσσατο*. Attic writers have in prose only *ἐράω*. The derivation of this stem is uncertain, though there is much to recommend Fick's view (Ztschr. xix. 247, Wtb. i.[3] 186) that *ἐρα* corresponds to the Skt. *ra, ram* (*rám-a-tē*, Ved. *ram-ṇá-ti*), which though meaning 'enjoy oneself' in the middle, is often applied to the love of one sex for the other. If this explanation is the true one the *ε* would have to be 178
regarded here as a prothetic vowel.

5) *ἰλα*. The only form preserved is the 2nd sing. imperat. *ἵλη-θι* (*γ* 380, *π* 184) with the same anomalous length of vowel as in *διδωθι, ἐμπίπληθι*. *ἵλαθι*, with apparently short *α*, occurs in Simon. C. 49 (Be.[3]), and the *α* is certainly short at Theocr. xv. 143, and Apollonius Rhod. iv. 1014, the latter having also the 2nd plur. *ἵλατε* iv. 984. By-forms are *ἱλάονται* Β 550, *ἱλήκησι φ* 365, *ἱλάσκεσθαι* Ζ 380. *ᾰ* and a *σσ* after it occur in just the same way as in the case of nos. 1, 2, and 4: *ἱλάσσεαι* (conj.) Α 147.—That the form *ἔλλα-θι*, 2nd plur. *ἔλλα-τε* cited from Callimachus[8] is identical with the stem *ἰλα*, is doubted by Ahrens Aeol. 284, and that not without reason, as in spite of Brugman Stud. iv. 120 the meaning is not quite the same. *ἔλλα-θι* (cp. Princ. i. 464) has been con-

[8] [Frag. 121 Blomf. Cp. Jacobs Anth. vol. ix. p. 408.]

nected with the Homeric *οὖλε* and the Lat. *salve*, and the meaning suits this admirably. In its formation at any rate *ἔλλα-θι*, which apparently stands for **σελϝα-θι*, belongs to our present class.

6) *κερα*. The existence of this stem depends on an accent. The question is, ought we at Δ 260 to write *κέρωνται* as is usually done with the approval of the Schol. L., or with I. Bekker to write *κερῶνται*? The latter suits *κεράασθε* γ 332, *κερῶντο* ο 500, *κερόωντο* θ 470. A third formation of the stem is to be seen in *κέραιε* I 203 (cp. *ἀγαίομαι*). *κέραμος* also points to a stem *κερα*, while *κρητήρ*, *κρᾱ-τήρ* start from *κρα* (Princ. i. 181), and there are also traces of *κερ*. *ἐκέρασσε*, *κεράσας* as in no. 5.

7) *κια* as a by-form of *κει* only occurs in *κίασθαι · κεῖσθαι* Hesych. Lobeck Rhemat. 178 distrusts this form.

8) *κια* as a by-form of *κι* (*κίνυμαι*) is only attested by Hesych. *ἐκίατο · ἐκινεῖτο*. The existence of this stem is to a certain extent established by *μετ-ε-κία-θ-ο-ν*.

9) *κρεμα*. Ο 21 *ἐκρέμω*. In Pindar and the Attic writers *κρέμαμαι*, *ἐκρέματο*. Cp. p. 115, no. 48 *κρεμάννυμι*.

10) *πετα*. *πέταμαι* is a somewhat later by-form of *πέτομαι*, first in Pindar, while the aorist *ἔπτατο* is as early as Homer (Ν 592, *ὑπέρπτατο* Χ 275, *ἀποπτάμενος* Β 71); there is also from Hesiod onwards (Opp. 98) the active *ἔπτην*. Here then the present-stem *πετα* confronts an aorist-stem *πτα*.

179 11) *πρια*. *πρίατο* α 430=ο 483. With Attic writers the form, along with *πρίωμαι*, *πριαίμην*, *πρίασο*, *πρίασθαι*, *πριάμενος*, counts for an aorist to the pres. *ὠνέομαι*, but belongs to the aorists which have obtained their aoristic force only through their contrast to other forms (cp. below, p. 125). The stem *πρ-ια* has clearly some relation to the rt. *περ* in *πέρ-νη-μι* and *πρα* in *πι-πρά-σκω*. It corresponds to the Skt. *vj-ā-prīja-tē* he is occupied. If *περ* meant sell, *ἐ-πρ-ιά-μην* meant I got sold to me, i.e. I bought. The peculiarity of this stem, then, consists in the addition of the syllable *ια*, which reminds us forcibly of the i-class of thematic verbs (cp. below, Ch. XIV. iii. 1).

b) Stems in ε.

12) *ἀε*. The vowel is short only before *ντ* : *ἀέ-ντ-ες* Ε 526 (cp. 3rd plur. *ἄεισι* Hes. Theog. 875), long everywhere else : *ἄη-τον* Ι 5, *ἀήμεναι* Ψ 214, *ἀῆναι* γ 183, *ἄη-το* Φ 386, *ἀήμενος* ζ 131, *ἄηται* Aesch. Choeph. 391. *ἀε* came from *ἀϝε*, and corresponds to the Skt. *vā* (*vā-mi*), Princ. i. 483.

13) *διε*. *δίε-νται* Ψ 475, *οὕτως ἐνδίεσαν ταχέως κύνας* Σ 584, *δίωνται* Ρ 110, *δίεμαι μὲν χαρίσασθαι, δίεμαι δ' ἄντια φάσθαι* Aesch. Pers. 701. A change to the thematic conjugation accounts for *δίο-ι-το* ρ 317, *διόμενος* Aesch. Eumen. 385. In the perf. *δέ-δια*, *δεί-δια* α corresponds to the ε in *δίε-σαν*, and that is why the ε appears in the opt. *δε-διε-ίη* Plato, Phaedr. 251 a. On the stem *δι*, *διε* see Princ. i. 291. The Skt. *dīj-ā-mi* I fly bears to *δίεσθαι* a relation similar to that of *prī-ja-tē* to *πρίασθαι*.

14) *θιε* only found in Hesych., in *θίη-μι · ποιῶ*, *θιῆσαι · ποιῆσαι*. Apparently, then, they are expansions of the rt *θε*. Is this possibly another instance of the analogy of the i-class, and has the same addition (originally *ja*) been made here to the root itself which was made to the root expanded by *c* in *fa-c-io*?

15) *ἰε*, preserved in the general Greek inf. *ἰέ-ναι*, in the opt. *ἰε-ίη* (T 209), in the impf. *ἥια*, contr. *ἧα* (Plato, Dem.), where *α* stands on the same footing as that of *δείδια*,—*ἦεσαν* like *ἐδίεσαν* (cp. v. Bamberg, Ztschr. f. Gymnasialwesen 1874, p. 37, 623). Difficulties are created by the diphthong *ει* in the Attic forms *ἦ-ει-ν* (Xen., Pl.), *ἦ-ει-σθα* (Plato Euthyphr. 4), *ἦ-ει* or *ἦ-ει-ν* (Plato), *ἦ-ει-μεν* (Plato), *ἦ-ει-τε* (Andoc.). Unless it be assumed that this preterite adopted the analogy of the pluperfect (Kühner, i. 662), an assumption which gets no support from the 180
meaning, or that there was composition with the preterite of the rt. *ἐς* (*ἧει* for **ἧε-ε*, **ἧε-σε* like *ἤδει* for *ἤδε-ε ἤδε-σε*), there is nothing for it but to take *ἡ* as the augment (cp. above, p. 88), and *ει* to be the same intensification of the *ι* which took place in *εἶ-μι*, though the plurals *ἦ-ει-μεν*, *ἦ-ει-τε* would still be very extraordinary as compared with *ἴ-μεν*, *ἴ-τε*, and could only be due to a false analogy. Of these three possible explanations the third seems to me the best. Hesychius moreover has *ἴε-σσα· βαδίζουσα*, *εἶη-μι* (Lob. *ἴημι*)· *πορεύομαι*, *εἶεν· ἐπορεύετο*. Perhaps, too, the remarkable *ἴμεναι* Υ 365 is to be referred to an earlier *ἰέ-μεναι*. This would be an analogous contraction to that which we assumed above for *ἦν*. As *ἰε* is to *ἰ*, so is the Skt. *jā* go to *i*. The adoption of the thematic conjugation has produced *ἰών*, *ἰοίην*, *ἴοιμι*, *ἦο-μεν* (λ 22).

16) *κιχε*. The whole of the forms belonging here: *κιχή-την* Κ 376, *κιχή-μεναι* Ο 274, *κιχῆναι* π 357, *κιχή-μενο-ς* Ε 187 show a long vowel, with the exception naturally of those which demand an *ε*, such as *κιχείς* Π 342, *κιχείη* Β 188, and those which are by nature indifferent, such as the conjunctive: *κιχείομεν*, or perhaps more correctly *κιχήομεν* Φ 128. At *ω* 284 Bekker[2] is no doubt right in reading *κίχης* for the traditional *κίχεις*, i.e. *ἐκίχης*.—It may be doubted, therefore, whether we have to do with Aeolising forms of a contracted verb like *φορῆναι* etc. or with a primitive stem *κιχη*. The root occurs in the shorter forms *ἀπέκιξαν* Aristoph. Ach. 869, *κίξατο· εὗρεν, ἔλαβεν, ἤνεγκεν*. A still more expanded present is *κιχάνω*. Cp. *ἄημι* (12).

c) Stems in *ο*.

17) *ὀνο*. *ὄνο-σαι ρ* 378, *ὄνονται φ* 427, *ὄνοιτο θ* 239, Ν 287, *ὤνοντο* (Hdt.). The by-form *οὔνε-σθ(ε)* of the thematic conjugation has been replaced at Ω 241 by I. Bekker by Aristarchus's *ὀνόσασθ(ε)*. The same scholar suggests the impf. *ὤνοτο* for the aor. *ὤνατο* Ρ 25, not without reason, inasmuch as there is no other trace to be found of a rt. *ὀν* in the sense of revile. The aorist is rather *ὠνοσά-μην* (Ρ 173, cp. *ὤμο-σα*), partic. *ὀνοσσάμενος*, fut. *ὀνόσσομαι*, verbal adj. Homeric *ὀνοστός*, Pind. 181
ὀνοτός, whence the frequentative *ὀνοτάζειν* (Hes., Homeric hymns). Fick, Wtb. I.[3] 126, conjectures the root to be *nad* revile. Unfortunately the only support for this root are isolated instances in Zend (*nad-eñt* despiser). That the Skt. *nid* (*nind-a-ti*) despise is weakened from *nad*, and that the Skt. *nad* bellow is the same verb are pure conjectures. Still this combination, which would give us the stem *ὀνοδ* with a prothetic *ο* as the foundation of the Greek forms, is worth noticing. This *δ* explains the *σσ*.

d) Stems in *υ*.

18) *ἀνυ*. *θοῶς δέ οἱ ἤνυτο ἔργον ε* 213, *ἄνυμες* (v. lect. *ἄνομες*)

Theocr. vii. 10, *ἄνυται* in Oppian and Nicander. Along with this Δ 56 *οὐκ ἀχύω*, and Κ 251 *νὺξ ’ἄνεται*, *ἔργον ’ἄνοιτο* Σ 473, *ἤνον ὑδόν* γ 496. Attic writers, besides *ἀνύω*, and *ἄνω* which is certainly derived from it, have *ἀνύτ-ω* of the *τ*-class. It will not do to start from the last form and give, as has been suggested, the series *ἀνύτ-ω* **ἀνύσ-ω ἀνύ-ω*, because *τ* hardly ever passes into *σ* before any letter but *ι*, and the *σ* thus arising out of a *τ* never disappears (cp. *φησι*). A fresh complication is introduced by the fact that *ἀνύω* is not only attested to be good Attic (Herodian i. 541), but also derives support from the Lacon. *κασάνεις*, i.e. *καθάνεις· ἀνύεις* Hesych (M.S. *κασάρνεις*, cp. Ahrens, Dor. 37). Pott accordingly concludes his discussion of these forms with a ‘non liquet.’ —Since we are entitled to start from the aspirated form, we might possibly find something to lay hold of in the Skt. *sanṓti*, middle *sanutḗ* possibly in the sense of adipisci, obtinere. Still Hesychius’s gloss *γαίνεται· ἀνύει* which has been altered because of its peculiarity into *γαίνυται* or *γ’ αἴνυται*, warns us not to be too sure about it.

19) *ἐρυ*, *ῥυ*, drag, in Homer only thematic, so too in Attic. Hesiod, however, has the infin. *εἰρῦ-μεναι* Opp. 818. *εἴρῦτο δὲ φάσγανον ὀξύ* at χ 90 Buttmann. ii. 181, is no doubt right in taking as a pluperf. mid. The Homeric *αὐέρυσαν* and the alternation of *ἑ*, *εἰ*, and *ῥ* in the initial (*ῥυστάζω*, *ῥυτήρ*, *ῥυμός*) leave no doubt that the word once began with a consonant, of which there are traces enough in Homer’s verse (Stud. vi. 266), *σσ* in the fut. and aor.

182 20) *ἐρυ*, *ῥυ* watch, guard, keep, *εἰρύαται* (*θέμιστας*) Λ 239, *νῆα ἔρυσθαι* to watch the ship ι 194, *εἴρυσθαι ἄκοιτιν* γ 268, *μέγα δῶμα* ψ 151, *οἷος γάρ σφιν ἔρυσο πύλας* Χ 507, *ὃς Λυκίην εἴρυτο* Π 542, *οἵ ῥα πύλας εἴρυντο* Μ 454, *οἵ με πάρος περ εἰρύατο* Χ 303, Soph. O. R. 1351, *ἔρυτο κἀνέσωσεν* (following Κ 44 *ἤ τις κεν ἐρύσσεται ἠὲ σαώσει*), *ἔρῦτο* with a passive meaning Hes. Theog. 304, *ἣ δ’ ἔρυτ’ εἰν ’Αρίμοισιν ὑπὸ χθόνα*. In the fut. and aor. we find *σσ* and a short vowel (*οὐ σύ γε βουλὰς εἰρύσαο Κρονίωνος* Φ 230). The shorter *ῥυ* occurs with the same meaning in *ῥῦσθαι* Ο 141, *ῥύατ’* Σ 515. With Ahrens and Kühner (i. 821) we must altogether reject the identification of this root with the preceding one, which Buttmann (Lexil. i. 63 ff.) tries to defend in a very forced way. For a fuller discussion of this see Stud. VI. 265 ff. *ἔρυσθαι* corresponds exactly in its use with the Skt. *var* defend, protect (Pott W. L. ii. 575), from which e.g. comes *var-ū-tár* averter, protector, *vár-ū-tha* defence, screen, shield (cp. *ἔρυμα*, *ἐρυμνός*), Zd. *varatha* bulwark, *avaretha* defenceless. I regard *ἐρυ* then as *var* expanded by the addition of *u*. *var* itself has survived without this addition in *ἔρμα* prop. It is true the initial *ϝ* is not completely established (Knös ‘De Digammo,’ p. 197).

21) *ἰλυ*. *ἰλύμενον· ἐρχόμενον*, *προβαίνοντα* Hesych. This word has clearly the same stem as *εἰλίποδες*. It occurs in a thematic form in *εἰλυόμην δύστηνον ἐξέλκων πόδα* Soph. Phil. 291 (cp. *εἰλυόμενος* ib. 702).

22) *λαζυ*. *λάζυσθαι* in Euripides and Aristophanes for the Homeric *λάζεσθαι*, occurring first in the hymn. in Merc. 316 *ἐπὶ βουσὶν ἐλάζυτο κύδιμον Ἑρμῆν*, *λάζυσθε* Eurip. Bacch. 503 (Arist. Lys. 209), *προσλαζύμεναι* Hec. 64. On the difficulties in the way of a connexion of these forms with *ζ* with those with *β* see Princ. ii. 323.

23) *πινυ*, preserved in *πινυ-τό-ς* and *πινυμένη· συνετὴ καὶ πεπνυμένη*

apparently from *πιν* by the spontaneous development of an *ι* (Princ. ii. 404).

When we come to consider the origin of these stems and to ask how they came to be dissyllabic, we shall have to distinguish between cases which are evidently of a different kind. The vowel which makes the second syllable may have been added either at the beginning, middle, or 183
end of the root. Thus we get three classes:

1) The vowel was added at the beginning, or in other words the 2nd syllable is due to prothesis possibly in the stem *ἐρα* (4), probably in *ἀϝε* (12), and in *ὀνο(δ)* (17).

2) The vowel was inserted undoubtedly in *πινυ* (23), perhaps in *ϝερυ* draw (19), inasmuch as it apparently stands for *ϝερυσ* and this for *ϝερσ* (Lat. *verro* for *verso*). The *υ* is then of the same kind as that in *καλύπτω*, *ἤλυθον*, *τολύπη*, Princ. ii. 403.

3) In by far the majority of these cases the 2nd syllable was added to the end of the stem. This mode of expansion is radically different from the two preceding kinds inasmuch as there the process is a purely phonetic, while here it is a formative one. For some of the forms of this class Westphal (Meth. Gr. i. 2, 167) conjectures a connexion with the nasal present-expansion, more particularly for *κρέμα-μαι* which he derives from **κρέμαι-μαι*, so that the only essential difference between it and *κρήμναμαι* lies in the position of the nasal. The only stems though for which this explanation is at all probable are such as have by-forms with a nasal strengthening, and the only other that has this is *κερα* (6). *πετα* (10) has most likely no connexion with *πετάννυμι*, as the rt. *pat* fly (Princ. i. 359) has nothing to do with *πετάννυμι*.

It is just possible that some of the roots in *υ* may be similarly connected with nasalised forms—that *ἐρυ*, *ῥυ* guard, save (20) may have arisen from *ϝερ-νυ*=Skt. *vṛ-ṇu* (*vṛṇṓmi*), *ϝερνυ* becoming *ϝερρυ* (cp. *ὀλλυ* from *ὀλιν*), and then *ϝειρυ* (*εἰρύαται*). Joh. Schmidt, Vocal. ii. 262, assumes *vru*, *varu*, *ἐ-ϝρυ*, all to have been phonetic varieties of the root *var*. *ἰλυ* (21) too we might conjecture to have arisen from *ϝελ-νυ*, and perhaps appeal to *ἐλ-ι-νύ-ω* loiter. A very bold man might conjecture for *λαζυ* (22) a form *λαδ-νυ* sprung from *λαβ-νυ* and correlative to *λαμβ-αιο*. There appears to be at least one clear instance of an analogous growth of *ζ* from *δι*, and that is *ζόφος* by the side of *δνόφος*, *γνόφος* (Princ. ii. 372), but there is no *βν* here.

In a few cases we thought we might assume an expanding *ια*=*ja*, i.e. in *πρ-ια* (11), perhaps in *δια* (13), *θια* (14). There is some support for this to be found in Hesychius's gloss *φυζάναι· φυγεῖν, δειλιάσαι*. If so it would be a case of present-tense-expansion, only with the vowel in its 184
more primitive form.

On the other hand, there are a number of stems left in which it is hard to establish anything more about the final vowel than that it constitutes an expansion of the root. To this number belong the two stems *ἑα* by the side of *ἑϛ* (3) and *ἰε* by the side of *ἰ* (15), in both of which the correspondence of Sanskrit proves the expansion to have been primitive, and again *δεα* (2) and the two stems *κια* (7 and 8). It is possible that we here have to deal with what were originally noun-stems in *α*, the predecessors and types of the numerous *α*-stems whose *α* turned thematic, and thus in Greek became sometimes *ο* and sometimes *ε*. On this assump-

tion this *α* would come as near to the thematic vowel as the *ια* of the last paragraph to the *ιο*, *jo* which forms the base of the thematic i-class, or as the *να* of *δάμ-να-μεν* to the *νο* of *κάμ-νο-μεν* and the *νε* of *κάμ-νε-τε*. We should thus have here, too, a kind of present-formation, but one with no semasiological distinction, for no one will try, I think, to find a difference of meaning between the Doric *ἦς* he was and *ἦν*, which we have assumed to be contracted from *ἦεν*.

CHAPTER V.

AORIST-STEMS WHICH HAVE NO THEMATIC VOWEL.

AORISTS which like ἔφῡν, ἔβης, ἔγνω contain nothing beyond the necessary elements of a verbal form were still called syncopated aorists by Buttmann. It is only necessary, however, to read the note on p. 2 of vol. ii.[2] of the 'Ausführl. Gr.'—a note with a special interest for the historian of grammatical thought—to see that Buttmann's scientific conscience had already broken with such a nomenclature. Buttmann himself saw that what distinguishes these forms from such as ἔλιπον, ἔδρακον is the fact 185
that, as he says at p. 9, 'they reject the connecting vowel,' while ἔλιπον has one. On p. 9, however, he expressly combats the supposition that ἔφυν has come from ἔφυον, and holds that 'in strict theory' it is possible to assume that we have here a third kind of aorist. Buttmann took here, that is, the same road as our Sanskrit grammarians, who actually assign separate numbers to the two corresponding forms in this language *á-bhū-t*=ἔ-φῡ, and *á-lipa-t* which, though not in its root, can in its formation be compared with ἔ-λιπε. Notwithstanding Buttmann directly afterwards falls in again with the syncope theory, when he says that in forms like ἔφην, ἔδῡν, where a long vowel precedes the personal termination, 'the syncope is not pure, for in the place of the connecting vowel we have here the lengthening of the vowel of the stem.' It is an astonishing theory, according to which something which never existed gets replaced by something else. Hence Lobeck, in his note on Buttmann, p. 11 f., prefers a different view. He called these forms 'primitive imperfects from the hypothetical presents βῆμι etc.,' or, directly afterwards, 'defective aorists of the Aeolic conjugation.' There is no more ground for the former description than there would be for calling ἔλιπον an imperfect of a lost *λίπω. The latter gives rise to no end of confusion by the use of the term 'aorists.' The difference between an imperfect and an aorist is essentially a negative one. As far as form goes, all we can say amounts to this, that aorist-forms are such forms of the preterite, conjunctive, optative, imperative, infinitive, and participle, to which there are no corresponding indicatives in the present, perfect, or future. ἔ-φη-ν and ἔ-βη-ν are formed in precisely the same way; the former is an imperfect because φη-μί is in existence, the latter an aorist because *βῆμι is not and never has been. The same is the case with βῶ βαίην βῆθι βῆναι as compared with φῶ φαίην φάθι φάναι. The Greeks gradually accustomed themselves to use all forms of the kind which had a corresponding present, in connexion with this present and with a *durative*, and to use those that had not with an *aoristic* meaning. To this important point we shall often have to recur. It has been the fashion 186
lately to characterise most of the forms which come into consideration in this chapter as aorists 'which follow the conjugation of the verbs in -μι.'

The aorists in question may be regarded as a relic of antiquity peculiar to the Greek language. If we except some faint and uncertain traces in Church-Slavonic, it is only in Sanskrit and Iranian that anything of the kind is found. Here, however, the correspondence with Greek forms is very extensive. From roots ending in a vowel we get the following corresponding aorists:

Skt. *á-gā-m*	= ἔ-βη-ν, impf. *á-gigā-m*, cp. βιβάς (see above, p. 105).
Skt. *á-dā-m*	= *ἔ-δω-ν, impf. *á-dadā-m* = ἐ-δίδω-ν.
O. Pers. *a-dā*	= *ἔδω.
Zd. 3rd pl. *dā-n*	= δό-ν for ἔ-δο-ν.
Skt. middle *a-di-ta*	= ἔ-δο-το.
Skt. *á-dhā-m*	= *ἔ-θη-ν impf. *á-dadhā-m* = ἐ-τίθη-ν.
Middle *á-dhi-ta*	= ἔ-θε-το.
Skt. *á-sṭhā-m*	= ἔ-στη-ν impf. *á tishṭha-m* (ἵστη-ν).
Skt. *á-bhū-t*	= ἔ-φῡ̄ (impf. *á-bhava-t* different from ἔ-φυε).
Zd. 3rd pl. *bu-n*	= φύ-ν for ἔ-φυ-ν(τ).
Skt. imperat. *çru-dhi*	= κλῦ-θι.

There is also a single instance from a consonantal root:

Skt. *ắr-ta* = ὦρ-το.

When we reflect that this antiquated formation of the aorist is rare, the agreement in the case of seven forms becomes very significant. They are all from verbs in extremely common use, which clearly kept the same place in Greek and Indo-Persian from the very earliest times. Greek, however, outdoes all the sister languages in the extent to which such forms occur. We shall find that there are more than forty primitive aorists of this kind, while Benfey (Kurze Skt. Gr. p. 159) reckons that only eleven verbs in Sanskrit make use of this form, though he does add that 'in the Vedas there are such forms from other verbs besides,' and Bopp (Sktgr. § 374 b) gives some of them. In Sanskrit, too, the middle voice of these forms is rare, and moreover is confined to the Vedas, while the language of Homer has preserved a particularly large number of such middle aorists. The only fundamental difference between the two
187 languages lies in the quantity. In the vowel-stems the vowel is in Sanskrit, with few exceptions,[1] long, while in Greek it is often short, so that though *á-sṭhā-ta* and ἔ-στη-τε coincide in the length of the stem-syllable, *á-dā-ta* and ἔ-δο-τε do not. We shall reserve this point for the present, and proceed now to a review of all the Greek aorists of this formation, arranging them after the principles adopted in Chap. IV. in the case of the presents.

I. MONOSYLLABIC AORIST-STEMS.

A) From the Unaltered Root.

a) Roots ending in α.

1) ἔ-βη-ν, Dor. ἔ-βᾱ-ν, common to all dialects and all periods, carried through all moods and verbal nouns: βῶ, βαίην, βῆθι (by-form βᾶ in

[1] To these belongs the above-mentioned *çrudhi* = κλῦθι, and also the likewise already noticed middle forms *ádita*, *ádhita*, as too *á-sthi-ta* middle to *á-stā-t* = ἔ-στη. There are isolated instances of *á-da-m*, *áda-s*, *á-da-t* from *ā-dā*, and *dha-t* from the rt. *dhā*. Moreover forms of the 3rd pl. like *á-du-s* must have gone through a stage in which they had a short *a*. Cp. Delbrück, *Verb.* p. 87 ff.

compounds, Lacon. *κάβασι*, i.e. *κατ-βᾶθι*), *βήμεναι*, *βῆναι*, *βάς*. The *ντ* preserved the original quality of the vowel, even in Ionic, both in the participial stem *βαντ* and in the 3rd pl. **ἐ-βα-ντ*, though it also made the vowel short: *βάντ-ος ἔ-βᾰν*. The same effect was produced by the *ι* in the optative: *βα-ίη-ν*. It is to be noticed that Homer varies the quantity: *ἐβήτην* Z 40, *βήτην* M 330, Ξ 281, 285—*βάτην* A 327, E 778, I 182, 192, K 469, *ἔβησαν* Θ 343, Λ 460, M 16, but also *ὑπέρβασαν* M 469.

2) *ἔ-δρᾱ-ν* (Hdt. *ἔδρην*), Homer has only the participle *ἀποδράς* π 65, ρ 516. The 3rd pl. *ἀπέδραν* occurs Soph. Aj. 167, and from this time onward it was in general use. The vowel in *ἀπέδρᾱμεν* (Aristoph. fr. ii. 1155 Mein. Com.), *ἀποδρᾶναι* etc. is always long.

3) *ἀπο-κλά-ς*, only in Anacreon fr. 17 B: *ἠρίστηται μὲν ἰτρίου λεπτοῦ* 188
μικρὸν ἀποκλάς. *κλά-ς* bears to the pres. *κλάω* just the same relation as that of *δύς* to *δύω*.

4) *πλῆ-το*, (filled oneself) in Homer and Aristophanes: Φ 16 *πλῆτο ῥόος κελάδων ἐπιμὶξ ἵππων τε καὶ ἀνδρῶν*, Φ 607 *ἔμπλητο*, Aristoph. Vesp. 1304 *ἐνέπλητο πολλῶν κἀγαθῶν*, opt. *ἐμπλῇτο*, imperat. *ἔμπλησο*, part. *ἐμπλήμενος* also in Aristophanes.[2]

5) *κατα-πτή-την*, only in Homer: Θ 136 *τῶδ' ἵππω δείσαντε καταπτήτην ὑπ' ὄχεσφιν*. The stem *πτη* occurs elsewhere only in the perf. part. *πεπτηῶτες*, the pres. *πτήσσω* is formed from a stem *πτακ.*—*ἀποπτάμενος* (p. 120).

6) *ἔ-στη-ν*, like *ἔ-βη-ν* in universal use, and carried through all moods with the infin. and part., Dor. and Aeol. imperat. *στᾶθι*, Dor. inf. *προστᾶμεν*. The vowel is only short where it is succeeded by *ντ*, in the 3rd pl. *ἔστᾰν*, *στάν* which are Homeric (also *ἔστησαν* N 488) and Doric (tabb. Heracl.), and in the part. *στάντ-ος*, and before the *ι* of the opt. *σταίην*.[3]

7) *ἔ-φθη-ν*. Λ 58 *ἔφθης πεζὸς ἐὼν ἢ ἐγὼ σὺν νηΐ μελαίνῃ*, Π 314 *ἔφθη*, Λ 451 *φθῆ*, 3rd pl. *φθάν* Λ 51, part. *ὑποφθάς*. The long vowel is as persistent as it is in nos. 1, 2, and 6, and so we have the Attic *ἔφθημεν*, *ἔφθησαν*, the Homeric conj. *φθήῃ*, the inf. *φθῆναι* Hdt. and Attic. In the middle, however, we have *φθάμενος* (N 387), *ὑποφθαμένη* ο 171 in contrast to *πλήμενος*.

b) Roots ending in an ϵ.

8) 1st pl. *εἶ-μεν* etc. On the augment see above p. 85. Without the augment: *κάθ-ε-μεν* ι 72, *ἄν-ε-σαν πρό-ε-σαν* δ 681, *ἀφ-έ-την* Λ 642, opt. *ἀφ-ε-ίη*, imperat. *πρό-ες*, *προ-έ-τω*, *ξύν-ες*, part. *ὑφ-έ-ντ-ες*, inf. *μεθ-έ-μεν*, mid. *ἕ-ντο*, *ξύν-ε-το*, all Homeric, imperat. *ἔξ-ε-ο* Hdt. There are many forms of this kind in compounds in Attic. Except the epic conj. *ἧῃ*, *ἀνήῃ* along with *ἐφείω* etc., of which we shall have to speak later, and the inf. *εἶναι*, where also the diphthong needs a closer examination, the vowel is short throughout.

9) 1st pl. *ἔ-θε-μεν* etc., common to all Greek, 3rd pl. *ἀν-έ-θεν* C. I. 189
29 (Argolic), mid. *ἐ-θέ-μην*. The same may be said of the quantity of the vowel as was said of that of no. 8.

[2] *ἔ-πτα-το*, *ἀπο-πτά-μενος* etc. have been given already—under no. 10 on p. 119. I cannot accept Joh. Schmidt's attempted identification (*Ztschr.* xxiii. 300) of the rts. *πτα* crouch and *πτα* fly.

[3] We might add here the reduplicated aorist *πέ-φη· ἐφάνη* Hesych. Cp. the Skt. *bhā-ti* he appears.

10) ἔ-σβη-ν. ἔ-σβη I 471, inf. κατα-σβῆναι and the like (Hippocr. ἀποσβείς) from Herodotus onwards. The vowel is long wherever it can be so (cp. perf. ἔ-σβη-κα). If, as is made probable by σβέν-νυ-μι, the Homeric σβέσ-σαι (ἔ-σβε-σα), σβέσ-σω (σβέ-σω), and the Homeric ἄ-σβεστος, the root originally ended in a sibilant (cp. Princ. ii. 197), we should have to suppose compensatory lengthening here. Doric has the α: ἀπέσβα Theocr. 4, 39 (cp. Joh. Schmidt, Ztschr. xxiii. 300).

11) 2nd sing. imperat. φρέ-ς, Com. anon. Meineke, iv. 651 ἔνθα σταθεὶς φρές μ' ὡς τὸ μειρακύλλιον, φρὲς τὸ φέρε Herodian, i. 463, 14 Lentz, part. ἐπεισφρείς Eurip. (Phaeth.) fr. 781, 46 Dind. μή τιν' Ἥφαιστος χόλον δόμοις ἐπεισφρὲὶς μέλαθρα συμφλέξῃ πυρί, inf. εἰσφρῆναι· εἰσάξαι, ἐνεγκεῖν Hesych. Nauck, 'das Verbum φρέω' Bulletin de l'Acad. Imp. de St. Pétersb. Tome vi. p. 424 ff., tries to prove that the stem φρε is nothing else than a compound of προ and ἐ, and that consequently φρές is the same as προές etc. But ingenious as are his arguments it is none the less impossible to find a precedent for the expulsion of the ο before ε. Moreover we have already on p. 107 seen that the present πι-φρά-ναι is a well-attested form. I follow Herodian in regarding the stem φρε as identical with φερ, and I believe that φρες bears to φέρε precisely the same relation as that of σχές[4] to ἔχε, σπές to (ἔνι)σπε. The verbs ἐκφέρειν, εἰσφέρειν are by no means far removed in their usage from the forms under consideration. The compounds of the Skt. *bhar anu-bhar*, *ava-bhar* mean bring in, introduce (e.g. into the body), just like ἐσπιφράναι and εἰσφρεῖν. The same root which in Skt. forms at one time *bhára-ti*=φέρει, at another *bhár-ti*, as it were *φερ-τι, has survived in both forms in Greek: φερ with a thematic vowel and φρε without one, and the latter became an aorist like σχε. From φρε again was
190 formed φρέω. As the connexion of φρές with φέρω was lost sight of there arose a fresh aorist of a different kind. Cp. Stud. viii. 327 ff.

c) Roots ending in ο.

12) ἔ-γνω-ν common to all Greek from Homer onwards (ἔ-γνω-σαν κ 397, γνώτην φ 36, γνώμεναι, γνῶναι). The vowel is always long when it is possible, ο occurs only in γνο-ίη-ν, γνούς, γνόντος and the 3rd pl. ἔγνον, which is demanded by the metre at Pind. Pyth. 4, 120, and has been adopted elsewhere in Pindar by Ahrens and others as against the variant ἔγνων (Isthm. 2, 23, Pyth. 9, 79), while the latter form, which anyhow stands isolated among these primitive aorists, holds a place to which it probably has no right, in hymn. in Cerer. 111 οὐδ' ἔγνων· χαλεποὶ δὲ θεοὶ θνητοῖσιν ὁρᾶσθαι (cp. Nauck Mélanges, iv. 25 f.)—There is, according to Veitch, only one instance of a corresponding middle form συγγνοῖτο Aesch. Suppl. 216.

13) ἔ-δο-μεν etc., in general use from Homer onwards. 3rd pl. ἔ-δο-ν Hes. Theog. 30, also Laconic C. I. no. 1511, middle ἐ-δό-μην etc. The vowel is short throughout.

The Aeolic πῶ-θι will be noticed as a by-form under πῖθι.—The word ἐξέτρω (ἐξεβλάβη, ἐξεκόπη ἡ κύησις) only found in the E. M. 347, 48, and

[4] Joh. Schmidt's assertion (*Ztschr.* xxiii, 301), that the *s* of σχές, σπές is thematic falls to the ground in the face of the fixed rule that *s* like the θι of the 2nd sing. imperat. never occurs in connexion with a thematic vowel. All these forms belong to the same class as θέ-*s*, ἔ-*s*.

discussed by Lobeck on Buttmann ii. 12, apparently equivalent in meaning to *ἐξέτρωσεν* (*ἐξήμβλωσεν* Hesych.), is so isolated that it had better not be reckoned in our list.

d) Roots ending in ι.

14) *ἐυ-κτί-μενο-ς*, Homeric, by the side of the pres. *κτίζω*, Φ 77, 433, Z 391, with passive force like *κτάμενος*, *βλήμενος*.—*κεῖμενον*, as conjectured by Bamberger, is probably the right reading at Aesch. Choeph. 806.

15) *πῖ-θι* (Hom. *πίε*) in Eurip. Cycl. 570 (*ἔκπῖθι*) and in Attic comedians (Cratin., Mein. Com. ii. 96 *τῇ νῦν, τόδε πῖθι*, Aristoph. Vesp. 1489). Hence the Aeolic *πῶ-θι* like *γνῶθι*, with the same vowel as *πέ-πω-κα*.—All the remaining aorist forms are inflected thematically *ἔ-πι-ο-ν, πι-εῖν*, except that at Anth. xi. 140 there is *πιεῖν* as a monosyllable, or as others write it *πῖν*. Similarly isolated are *κλῦθι, σχές*, and other imperatives.

16) *ἐ-φθί-μην*. *ἔ-φθι-το*, conj. *φθίεται* Υ 173, Opt. *ἀποφθίμην* κ 51, *φθί-μενο-ς, φθί-σθαι* in poetry from Homer on (Σ 100, Θ 359, Ι 246, Soph. 191
O. R. 962). The vowel is short throughout. *φθίσθαι* bears to the thematic *ἔφθιεν* Σ 446 just the relation borne by *πῖθι* to *ἔπιον*.

e) Roots ending in υ.

17) *ἔ-δῦ-ν, ἔ-δῦ-μεν, ἔ-δῦ-σαν* in use from Homer's time, and particularly in poetry. 3rd pl. *ἔδυν* Λ 263, conj. *δύω*, opt. 3rd sing. *δύη* (*σ* 348), Imperat. *δῦθι, δύτω*, inf. *δύμεναι* and *δῦναι*, part. *δύς δύντος*, a long vowel, that is, when possible.

18) *θῦ-μενο-ς* only found in the fragment of a hyporcheme of Pratinas—

ἐμὲ δεῖ κελαδεῖν, ἐμὲ δεῖ παταγεῖν
ἀν' ὄρεα θύμενον μετὰ Ναϊάδων

as the M.SS. A and C of Athenaeus have it (xiv. 617 d) with the variant *σύμενον* in B. W. Dindorf has adopted the former, Bergk and Meineke the latter, though Bergk adds '*θύμενον* A. forte recte.' Since *θύμενος* is just as correctly formed as *σύμενος*, and since *θύειν* is the vox propria for the phrensied movements of the *θυιάδες* (cp. *θοάζειν*), there seems to be good reason for holding it to be the right reading.

19) *κλῦ-θι, κλῦ-τε*, along with *κέκλυθι, κέκλυτε* (to be discussed later), common in Homer and found in the tragedians. We have above compared *κλῦθι* with the Skt. *çrudhi*. We may add the middle participle *κλύμενος* Theocr. xiv. 26 with its Homeric predecessor *Περικλύμενος*, which proper name must have had the meaning *περικλυτός*.

20) *λῦ-το* Φ 114, 425, δ 703 etc., in the phrase *λύτο γούνατα*, only at Ω 1 do we get *λῦτο δ' ἀγων*. To explain the long vowel here as due to the arsis would be as foolish as to be surprised at *βάτην* by the side of *βήτην* (cp. Lobeck on Buttm. ii. 16). We may add the 3rd pl. *λύντο* Ο 435, *ὑπέλυντο* Π 341. The active occurs only in *λῦθι*, used by Pindar, according to the Et. M. 274, 50, in a playful etymology given by him for the word *διθύραμβος* (cf. Boeckh on Pind. ii. 2, 585).

21) *ἄμ-πνυ-το* Λ 359 *τόφρ' Ἕκτωρ ἄμπνυτο* (cp. Χ 475, ε 458, ω 349), always with a long *υ*, like *λῦτο, κλῦθι, δύμεναι*. *ἄμ-πνυτο* bears to the

active ἄμπνῦε the same relation as that of κλῦθι to ἔκλῦε, πῖθι to ἔπῖε, λέκτο to λέγε.

22) σύ-το Φ 167 σύτο δ' αἷμα κελαινεφές, Pind. Ol. 1, 20, ἔ-σῦ-το Eurip.
192 Hel. 1133, σύμεναι, ἐπισύμενος Aesch. ἔσσυο, ἔσσυτο may be pluperfects to the perf. ἔσσυμαι, ἐσσυμένος, but need not be so, for ἔσσενα (E 208) has also the double σ after the augment.

23) ἔ-φῡ-ν from Homer's time (φῡ, 3 pl. ἔφῦν, περιφῦναι) in universal use, and there is a Boeotian participle φοῦσα=φῦσα Corinna.

24) ἔ-χῠ-το χ 88, χύτο N 544, σύγχυτο, ἔκχυτο, ἀμφέχυτο also Homeric along with χύντο, χυμένη. The tragedians apparently use only the participle: χυμένας Aesch. Choeph. 401, χύμενον Eumen. 263, Eurip. Heracl. 76.

f) Roots ending in a consonant.

In the oldest Sanskrit formations of this kind are by no means rare, e.g. 3rd sing. *á-han* (rt. *han* strike), *á-kar* (rt. *kar* make).

In the active voice only two such aorists have been preserved in Greek.

25) ἔ-γαν only in Hesychius's gloss ἔγαν· ἐγένετο. The analogy of ἔκτα would lead us to expect ἔ-γα for the third singular. Musurus adopted the equally remarkable *ἔγανε. Lobeck on Buttm. ii. 14 proposes ἔγαε on the analogy of ἔδαε. It is not inconceivable that ἔ-γαν should have been formed in exactly the same way as the Skt. 3rd sing. *á-han* from the rt. *han*, i.e. that the primary *ἔ-γαν-τ passed through *ἔγανν to ἔ-γαν, just as *Αἰαντ passed in the voc. through *Αἰανν to Αἶαν. There is in the middle the form γέντο Hes. Theog. 199, 283 (Rzach Dial. Hes. 460), Sappho 16 Be.[3], ἐπέγεντο Theogn. 640.

26) ἔ-κτᾰν. 1st sing. κατέκταν only at Δ 319, 3rd sing. ἔκτα Z 205, M 46 etc., κατέκτᾰ N 170 etc., always except at O 432, at the end of a line, ἔκτᾰμεν μ 375, κατέκτᾰμεν ψ 121, 3rd pl. ἔκταν K 526, the conj. κτέωμεν, inf. κτάμεναι, part. κτάς, and also isolated forms, especially participles, in the tragedians. Middle ἀπέκτατο O 437, P 472, κτάσθαι O 558, κταμένοιο γέροντος X 75, κτάμενον, κταμένοισι etc., the participle in Pindar and in Attic poets. This aorist is a very remarkable one indeed. The shortness of the vowel proves that the stem κτᾰ has been shortened from κταν, for the only 1st sing. which could have come from κτα would be ἔκτᾱν Ion. ἔκτην, and this by analogy would have influenced other forms, particularly the perfect. The complete disappearance of the ν from the end of the 3rd sing. (primary form *ἔ-κταν-τ), as contrasted with
193 the (somewhat doubtful) ἔ-γαν discussed above, is remarkable. Although then all forms of the root originally ended in ν, still κτέωμεν and κτᾰ́-ς were formed from the shortened stem κτα.

The remaining forms, which occur only in the middle, are as follow:

27) ἄλ-σο Π 754 in that verse of many anomalies ὣς ἐπὶ Κεβριόνῃ, Πατρόκλεες, ἆλσο μεμαώς, ἆλτο Γ 29 etc. ἄλμενος. We have already noticed the peculiarity of the breathing and the length of the vowel at p. 90.

28) ἄρ-μενο-ς poetic from Homer onwards.

29) ἄσ-μενο-ς, from Homer onwards (ἄσμενοι ἐκ θανάτοιο etc.) in poetry, and also in Herodotus and Thucydides, for *σϝάδ-μενο-ς rt. σϝαδ (ἀνδάνω, ἥδομαι), in a middle sense and therefore coming

nearest to *ἤδομαι*. The *σ* is remarkable, as the analogy of *ἴδμεν*, *ὀδμή* would make us expect the radical *δ* in Homer. In *κεκασμένος* too, however, the sibilant appears in contrast to the Pindaric *κεκαδμένος*.

30) *γέν-το* he took hold of, only in Homer: *γέντο δὲ δοῦρε* N 241, *γέντο δ' ἰμάσθλην* Θ 43 (N 25), *γέντο δὲ χειρὶ βαιστῆρα κρατερήν, ἑτέρηφι δὲ γέντο πυράγρην* Σ 476, from a rt. *γεμ*, which appears most clearly in Hesychius's glosses *ἀπό-γεμ-ε· ἄφελκε* and *σύγγεμος· συλλαβή*.—Cp. *γέντο* he became under no. 25.

31) *δέκτο* he received B 420 *ἀλλ' ὅ γε δέκτο μὲν ἰρά*, O 88 *δέκτο δέπας*, *ὑπέδεκτο* he undertook I 480, *δέξο* receive T 10, *δέχθαι* A 23, Pind. Ol. 2, 49 *γέρας ἔδεκτο*, while *ἐδέγμην* ι 513, *μ* 230 and the part. *δέγμενος* belong to the meaning await which will have to be discussed in connexion with *δέδεγμαι*, *δέχαται* when we come to the perfect.

32) *ἐλέλικτο* belonging to *ἐλελίζειν* whirl round (cp. *ἐλελιξάμενος*) Λ 39, N 558 cp. Buttm. Lexil. i. 138, Fick, Ztschr. xix. 252.

33) *εὖκτο* only in the fragment of the Cyclic Thebais quoted by the scholiast on Soph. Oed. Col. 1375: *εὖκτο Διὶ βασιλῆι καὶ ἄλλοις ἀθανάτοισιν*.

34) *ἶκτο* only Hes. Theog. 481 *ἔνθα μὲν ἶκτο* (Koechly *ἵκτο*), but the part. *ἵκμενος οὖρος* A 479 and elsewhere, literally 'that has come' (cf. 'welcome'), an apt epithet for a favourable wind that has at last come in answer to the prayers of the sailors. Ahrens's connexion of *ἵκμενος* with *ἔοικα* seems less natural.

35) *κέντο* only Alcman fr. 141 with Doric *ν* for λ, belonging to 194
κέλομαι.

36) *λέκτο* he counted *δ* 451 *λέκτο δ' ἀριθμόν*, a middle to the impf. *λέγε* in line 452, and there is also *πέμπτος ἐλέγμην* ι 335 with a passive meaning.

37) *λέκτο* he laid himself (rt. *λεχ*, *λέχος*) *δ* 453 *ἔπειτα δὲ λέκτο καὶ αὐτός*, *κατέλεκτο* I 662, *ν* 75, *παρκατέλεκτο* I 565, 664, *προςέλεκτο μ* 34, with the meaning of an imperfect in Hesiod Scut. 46 *παννύχιος δ' ἀρ ἔλεκτο*. Also the imperat. *λέξο* Ω 650 (but at I 617, *κ* 320 *λέξεο* from the sigmatic aorist), *καταλέχθαι ο* 394, *καταλέγμενος* λ 62, *χ* 196.

38) *μῖκτο* Λ 354, Π 813, *ἔμικτο α* 433.

39) *ὄρ-σο* Δ 204, E 109 (but *ὄρσεο* Γ 250 etc.), *ὦρτο* E 590, Hesiod Theog. 990 etc., also *ἐπῶρτο*, *ἐνῶρτο*, *ὄρθαι* Θ 474, *ὄρμενος* Λ 572, *πάλιν ὀρμένω* Λ 326, and certain of these forms occur also in Pindar and the tragedians.

40) *πάλ-το* O 645, *ἔκπαλτ'* Υ 483, *ἀνέπαλτο* Θ 85, *ἐκκατέπαλτο* T 351. —There is what seems to be an active to this form metathesised in Hesychius's gloss *ἐξέπλη· ἐξέπεσεν*, formed like *ξυμβλήτην*. Or can *ἔπλη* be identical with *ἔπλε* (M 11) which counts for an imperfect, and so belong to the rt. *πελ*?

41) *πέρθαι* for *περθ-σθαι* Π 708.

42) *πῆκτο*, *κατέπηκτο* Λ 378.

Forms which only occur in late poets, such as *ἔλειπτο* Apoll. Rhod. I 45 *οὐ δὲ μὲν Ἴφικλος Φυλάκῃ ἔνι δηρὸν ἔλειπτο*, and *ἄμειπτο* Nonn. Dion. xliv. 241, and which are condemned at once by their diphthong as wrong forms, or rather as mistaken imitations of Homeric forms which were not understood, have not been admitted into this list. Buttmann i. 318 regards them as pluperfects without reduplication.

B) Metathesised Aorists.

43) *ξυμ-βλή-την φ* 15 *τὼ δ' ἐν Μεσσήνῃ ξυμβλήτην ἀλλήλοιιν, ἔ-βλη-το* by the side of *βάλλω, ἔβαλον* Λ 410, *βλῆτο* Δ 518, *ξύμβλητο* Ξ 39, with the conj. *βλήεται*, opt. 2nd sing. *βλεῖο* (Bekk. *βλῇο*), inf. *βλῆσθαι*, part. *βλήμενος, ξυμβλήμενος*.

44) *πλή-το* Ξ 438 *αὖτις δ' ἐξοπίσω πλῆτο χθονί, ἔπληντο* Δ 449, *θ* 16, *πλῆντο* Ξ 468 by the side of *πελάζω, ἐπέλασεν, πελάω*. *πλῆνται* with present meaning, Parmen. v. 8 is doubtful (Stein Symbola Philol. Bonn, p. 803). So too *πλη-σίον* by the side of *πέλας*. Cp. Princ. i. 345.

195 45) *ἀπο-σκλῆ-ναι*, Aristoph. Vesp. 160, *ἀποσκλαίη· ἀποξηραίνοιτο, ἀποθάνοι* (Hesych.), by the side of *σκέλλω*. Other similar forms, also a *κατασκλῆναι*, in late prose (Nauck Mélanges iv. 26).

46) *ἐνί-σπε-ς* Λ 186, Ξ 470 by the side of *ἐνίσπε*, from the rt. *σεπ*, which occurs without syncope in *ἔν-νεπ-ε* for *ἔν-σεπ-ε*. Buttmann (Ausf. Gr. ii. 168), who finds a supporter in La Roche (Hom. Textkritik 256), will not allow the form, because *ἐνί-σπε-ς* can only be explained as a compound, while he wants to establish that *ἐννέπω* with all belonging to it is nothing but a simple verb, an idea which, in the face of the Latin *in-sec-e* and the fut. *ἐνι-σπή-σω* (*ε* 98), I find it impossible to accept. It is true that *ἐνί-σπε-ς* only occurs at the end of a line, and that the only other place, except in Apollon. Rhod., in which it occurs, is a strophe of Sappho which from its subject is rightly held to be spurious (Bergk[3] 26), but in its formation, which the best of the old grammarians rightly compared with *ἐπί-σχε-ς* there is nothing remarkable whatever (Herodian ed. Lentz i. 467, 25, ii. 127, 29, 137, 10). The indicative *ἐνί-σπε*, which Herodian is careful to distinguish from the imperative, bears to *ἐνί-σπε-ς* exactly the same relation that *ἔ-σχε* does to *σχέ-ς*. The by-form for the imperative *ἐνί-σπε* is naturally to be explained in the same way, as also are *παρά-σχε* and the like which often occur in M.SS. but are generally rejected by editors (Veitch, p. 257). That is the *ε* which from the beginning belonged to the root has followed the analogy of the thematic vowel. That the old grammarians should have 'invented' a form like *ἐνί-σπε-ς* seems to me altogether unlikely.

47) *σχέ-ς* is related to the rt. *σεχ* in exactly the same way as *σπέ-ς* to the rt. *σεπ* and is as isolated a form as *σπέ-ς*, for all the other aorist-forms like *ἔ-σχον, σχοίη-ν, σχεῖν* (*σχέ-μεν* Θ 254) etc. follow the analogy of the thematic conjugation. There is all the less reason then to challenge the isolated *παρά-σχε κατά-σχε*, noticed under no. 46, out of sheer purism, when there is good evidence for them. In the accentuation of this form I follow Göttling Allg. Lehre vom gr. Accent, p. 45.

48) *ἔ-τλη-ν* (Dor. *ἔ-τλᾱ-ν*) common in poetry from Homer onwards, 1st pl. *τλῆ-μεν*, 3rd pl. *ἔ-τλᾰ-ν*, opt. *τλα-ίη-ν*, imp. *τλή-τω, τλῆ-τε* all Homeric, *τλῆ-θι, τλῆ-ναι*, part. *τλά-ς* in the tragedians. Homer however
196 has *πολύ-τλα-ς* which, like *τάλᾱ-ς*, is rather regarded as an adjective. There is no present in use as a verbal form, but *τάλᾱ-ς* like *τάλ-αντ-ο-ν, τάλ-αρο-ς, ταλα-ό-ς* (Princ. i. 272), points to *ταλά-ω* from which it was originally a regular participle of the Aeolic type. The epic *ἐτάλασσα* (cp. *ἐπέλασσα*) likewise points to *ταλ*, while *τέ-τλᾰ-μεν, τέ-τλη-κα* come from the metathesised *τλα*.

49) *ἔ-βλω· ἐφάνη, ᾤχετο, ἔστη* (Hesych.) along with the participle *ἀγχιβλώς· ἄρτι παρών* has already been placed by Lobeck on Buttm. ii.

12 in the list of aorists of the old type and connected with *ἔ-μολ-ο-ν*, *μέ-μβλω-κα*.

50) *ἔ-βρω· ἔφαγεν, ἔδυκε, διέσπασεν* Hesych., and therefore belonging to the rt. *βορ, βιβρώσκω*. Hymn. in Apoll. 127 *κατέβρως ἄμβροτον εἶδαρ*, Callim. hymn. in Jovem 49 *ἐπὶ δὲ γλυκὺ κηρίον ἔβρως*.

C)

The following form stands quite alone:

51) *ἔ-πλω-ν ἐπέπλων* Hes. Ἔργ. 650, *ἐπ-έ-πλως γ* 15, *ἀπ-έ-πλω ξ* 339, *παρ-έ-πλω μ* 69, part. *ἐπιπλώς* Z 291. As *πλώω* has come from **πλέϝω*, and the *ω* can hardly be otherwise explained than from *οϝ*, it may be said that a defaced consonant stem forms the basis of *ἔ-πλω-ν*. Whether the case is the same with *ἔ-τρω* mentioned on p. 128 after no. 13 (cp. *τραύ-ω*) I cannot decide.

II. DISSYLLABIC AORIST-STEMS.

Besides these 51 aorists, which must be mostly of a primitive formation, there are a number of dissyllabic forms, akin to them in inflexion and use, which clearly only owe their position as aorists in the verbal system to the fact that the corresponding present stems have base-forms differing from theirs. Properly speaking these dissyllabic aorists belong as little to the above-mentioned monosyllabic ones as do the contracted verbs of the Aeolic inflexion to the verbs in *μι*. Since however the said forms are of various kinds, are occasionally of obscure formation, and only resemble each other in this, that they are to be referred to dissyllabic stems of aoristic force, and that they have no 197
thematic vowel, it seemed best to give them their place here. They are as follow:

52) *ἐ-ά̆λω-ν*, in common use from Homer onward (ind. *ἤλων* cp. p. 79) with the conj. *ἁλώω* contr. *ἁλῶ*, opt. *ἁλῴην* later *ἁλοίην*, inf. *ἁλῶναι*, part. *ἁλούς*, almost exactly the same as *ἔ-γνω-ν* with its moods. The inchoative *ἁλ-ίσκο-μαι* does duty as present. Cp. Princ. ii. 170. *ἐ-ά̆λω-ν* is apparently a contracted preterite from the stem *ἁλω*, inflected like the Aeol. *ἐ-δοκίμω-ν* from the stem *δοκιμω*. Accordingly the vowel is long wherever it is possible.

53) *ἐξ-ήμβλω* a late form, not occurring before Themistius, instead of the older *ἤμβλωσε*. It is quite enough to show us that the power of making forms of an old-fashioned stamp on the analogy of old forms lasted a long time. *ἐξαμβλοῦμεν* in Eurip. Androm. 356 is a present.

54) *ἁρπᾰ́-μενος* not earlier than the poets of the Anthology: *ὑφαρπαμένη* (active) Agathias ix. 619, *ἁρπαμένης* (passive) Macedonius xi. 59, evidently therefore like *ἱστά-μενος* from *ἵστα*, one of the many evidences to the relationship between the verbs in *αω* and those in *αζω*.

55) *ἀπ-ούρα-ς*. *ἑλὼν γὰρ ἔχει γέρας αὐτὸς ἀπούρας* A 356 and often elsewhere in Homer. Pindar too has *ἀπούραις* (Pyth. 4, 149). Ahrens's view of this form now finds considerable and deserved acceptance. It is that its stem is really dissyllabic only in appearance, its ultimate form being the monosyllabic *ϝρα*, the relationship of which to the rt. *ϝερ* has been discussed at Princ. i. 431 (cp. Sonne Ztschr. xiii. 434). The only representative of the middle is *ἀπουράμενος* Hes. Scut. 173: *ἀπουράμενοι ψυχάς*. In all the forms then, as in *εὔαδε, κανάξαις* and other forms of

the kind, the ϝ has turned to a vowel. We may add to them the fut. *ἀπουρήσω*, which is the reading of some good M.SS. at X 489, though the most and the best M.SS. have *ἀπουρίσσουσιν* from *ἀπ-ουρίζω*=*ἀφορίζω*. *ἀπουρήσουσι* suits the sense far better, and is adopted by Buttmann and I. Bekker. There is no hint of an **ἀπαυράω*. Following Sonne, Brugman, at Stud. iv. 166, conjectures that the *η* has been lengthened from *ε* by the influence of the ϝ, and that *ἀπηύρα* came from **ἀπεϝρα*, which would bear the same relation to *ἀπούρας* as does *ἀπέδρα* to *ἀποδράς*. It is hardly probable however that the ϝ should have had the power of
198 lengthening the vowel after it had become *υ*. As regards the accent of the participle Westphal, Formenl. i. 2, 285, is perhaps right in supposing that it ought by rights to be on the final syllable.

56) *ἐ-βίω-ν*. Homer has *βιώτω* Θ 429, *βιῶναι* Κ 174. The remaining forms are in common use in Attic: conj. *βιῶ*, opt. *βιῴην*, part. *βιούς*. Apparently *ἐβίων*, like *ἔἁλων*, is the preterite of a stem which has nothing aoristic about it, so that there is no sort of inherent and original difference of stem between these aorist-forms and the present-forms *βιοῖ*, *βιῶν*, *βιοῦν*. The present is moreover generally supplied by *ζάω*.

57) *ἐ-γήρᾱ-ν*, from Homer's time (*ἐγήρα* Η 148, *γηράς* Ρ 197) in very general use: inf. *γηρᾶναι*, hardly *γηράναι*, which is sometimes written, and is maintained by Cobet, Mnemos. xi. 124. Dat. part. *γηράντεσσι* Hes. Opp. 188. In its formation this stem is just as much a contracted one and just as little of an aorist as *ἁλω*, *βιω*. The present to it is *γηράσκω*.

58) 3rd sing. *οὖτα* Ε 376, Ζ 64, inf. *οὐτάμεναι* Φ 68 *οὐτάμεναι μεμαώς*, and also *οὐτάμεν*, mid. part. *οὐτάμενος*, *κατ' οὐταμένην ὠτειλήν*.—*νε-ούτατος* (Σ 536) by the side of *ἄουτος*. There is a present *οὐτάω* (*οὔτασε χαλκῷ* χ 356) with *οὔτησε*, *οὐτήθη*, and an *οὐτάζω* Υ 459 (cp. Hesych. *βωτάζειν· βάλλειν*) with *οὔτασε* Ο 528, *οὔτασται* Λ 661, *οὐτασμένος* λ 536. Forms of the latter kind are not unknown to the tragedians. The stem is a very peculiar one. *οὖτα* suggests *ἔκτα*, and this would point to a final *ν*, *οὐτάμενος* might be compared with *κτάμενος*, or on the other hand with the late *ἁρπάμενος*. The formation of the presents evidently points to an **οὐταϳω*. The only related Greek words are *ὠτειλή* (Hesych. *γυτειλαί· οὐλαί*). Conjectures have been made as to related words in other languages by Fick Wtb. i.[3] 769.

59) *ἐ-πριά-μην* has been already discussed on p. 120 no. 11.

60) *ὠνή-μην*, represented in Homer by the forms *ἀπόνητο* Ρ 25 and elsewhere, *ἀπόναιο* Ω 556, imperat. *ὄνησο* τ 68, *ὀνήμενος* β 33.—In later poets (Theogn. Eurip.) *ὠνήμην* (by the side of *ὤνασθε* Eurip. Herc. f. 1368) *ὠνήμεθα*, in both poetry and prose *ὀναίμην*, *ὄνασθαι*. The quantity of the vowel is thus a varying one. *ὀνα* bears a regular relation to *ὀνινα* (p. 108).

199 I have purposely omitted the *βρόντας ἀντὶ τοῦ βροντήσας* quoted in the Scholium Ven. to Ρ 197 from Corinna, as the form may very well have been an Aeolic present participle like the Lesbian *γέλαις* turned by mistake into an aorist participle. I do not however mean to deny the possibility of a *βροντάς* formed in exactly the same way as *γηράς* (cp. Bergk, Lyr.[3] p. 1213).

Now that we have reviewed all the forms belonging to this class it will be well to examine in connexion with each other two of their characteristics, firstly the quantity of the stem-vowels and next the relation of these aorists to the corresponding presents.

The usual view as to the stem-vowels is that the short vowel is more or less the rule and that a long vowel where it occurs is due to intensification. So Schleicher, Comp. § 292. We are certainly justified in starting from roots which show a short vowel, and those long vowels must be admitted to contain an additional element in the case of which we can see that the lengthening is in some way subservient to the formative process. But it appears that this intensification was originally the rule and that we are obliged to regard the short vowel in the tense-stem as historically the younger of the two. We are, I think, entitled to this assertion in the first place because, as has been mentioned at p. 126, *in Sanskrit the vowel is as a rule always long*. The case is the same in Zend. Here a majority of forms are like *dâṭ*, *stâṭ*, *dâmâ*, *dâtâ*, a minority like *bun*= ἔφυν (Justi 400), Old-Persian too has *adâ*=*ἔθη. In Greek, even when the prevailing quantity of the vowel is long, it is shortened unconditionally before ντ in the stem of the participle: στα-ντ, γνο-ντ, and in the 3rd plur. of the preterite: ἔ-στα-ν ἔ-γνο-ν, ἔ-φῡ-ν, where the vowel remained short even after the τ had fallen away, and again as a rule before the modal characteristics of the optative: στα-ίη-ν, γνο-ίη-ς. These very facts lead, I think, to the assumption that the long vowel is to be considered the older of the two. For we can clearly recognise an inducement to shorten the vowel in the proximity of ντ and ι, while it would not be easy to find an explanation which would account for the lengthening of so many different syllables at a comparatively late date. We may 200
find a testimony to the power of ντ and ι to shorten vowels in the Aeolic inflexion of the contracted verbs, where there can be no doubt that the vowel produced by the contraction was originally a long one. ἐγέλαν, γελάντος owe their ă, ἐφίλεν, φιλέντος their ε exclusively to this influence. The proper character of a formation comes out most distinctly in cases where there are no external impediments in its way. We shall therefore hold βή-την to be older than βά-την, and κλῦ-θι than the Skt. *çru-dhi*.[5] The shortening of the vowel had evidently the analogy of the imperfect in its favour, as in that tense it is long only in the singular. It was natural that ἐ-δί-δο-τε, which the fixed rule in Sanskrit establishes as primitive, should be followed by ἔ-δο-τε, and ἐ-δί-δο-σαν by ἔ-δο-σαν. This view gains support from the relative numbers of the different kinds of these aorists in Greek. In respect of their quantity we may divide them into the following classes.

[5] While the 1st edition of this book was being printed, J. Rutgers, in Fleckeisen's *Jahrb.* 1872, p. 746, expressed a similar view to that expressed in the text, while J. Schmidt (*Ztschr.* xxiii. 282 f.) opposes it, maintaining that these forms showed from the beginning the same variation between the short vowel that belongs to the dual and plural in the active and to the whole of the middle, and the intensified vowel of the active singular—that consequently ἔ-βη, ἐ-βᾰ́-την in this resemble ἴ-στη, ἵ-στά-την—but that the long vowel was afterwards extended to the plural on the analogy of the singular. But why did not this same extension take place in the present? Besides, Johannes Schmidt says nothing about the forms in the Asiatic languages, and it is the consistency with which the vowels are long there on which I base my view.

A) Forms which leave the Vowel long where it is possible.

To this class belong ἁλω (52), βιω (which has actually βιῴην, 56), βλη (43), βλω (with even a part. βλώς, 49), βρω (50), γηρα (57), γνω (12), δρα (2), δῦ (17), πλη fill (4, with even ἐμπλῆτο), πλη bring near (44), πλω (even πλώς, 51), πτη (5), σβη (10), στα (6), τλα (48), φῦ (23), in all 17.

B) Forms whose Quantity varies.

βα (1), κλυ (19), λυ (20), ὀνα (60), φθα (7), φρε (11), in all 6.

201 C) Forms which have the Vowel always short.

δο (13), ἑ (8), θε (9), οὐτα (58), πρια (59), σπε (46), συ (22), σχε (47), χυ (24), in all 9.

D) Forms where there is not enough Evidence to establish either Quantity.

And of these there are 1) such as may be long for all we know:
ἀμβλω (53), κλα (3), οὐρᾰ (55), πῐ̀ (15), πνυ (21), σκλη (45).
And 2) such as may be all short:
ἅρπα (54), θυ (18), κτι (14), φθι (16), in all 10, of which 6 are more likely to be on the side of the long vowel than on that of the short. We thus see that the long vowel has a decided majority on its side.

When we ask in the second place what kinds of presents generally correspond to these primitive aorist-stems, we find, it is true, a tolerable diversity among them, but here again one kind as a rule prevails, and that is the reduplicated. In the following seven cases the aorist has a reduplicated present:

βᾰ	(1)	pres. stem	βι-βα (p. 105)
πλᾰ	(4)	,,	πιμ-πλα
στᾰ	(6)	,,	ἱ-στα
ἑ	(8)	,,	ἱ-ε
θε	(9)	,,	τι-θε
φρε	(11)	,,	πι-φρα
δο	(13)	,,	δι-δο

In the two following the present has become thematic:

γαν	(25)	pres. stem	γι-γνο
σχε	(47)	,,	ἰ-σχο

To these we may add the present-stems which, in addition to the reduplication, show further marks of strengthening. It is most natural to suppose that these were added subsequently to the reduplication:

δρα	(2)	pres. stem	δι-δρα-σκο
γνω	(12)	,,	γι-γνω-σκο
δυ	(17)	,,	δι-δυ-σκο
ἀρ	(28)	,,	ἀρ-αρ-ι-σκο
βορ	(50)	,,	βι-βρω-σκο

in all, that is, 14.

The kind that stands next numerically is that made by nasal additions: 202

μιγ	(38)	pres. stem	μιγνυ
ὀρ	(39)	,,	ὀρνυ
παγ	(42)	,,	πηγνυ
σβε(s)	(10)	,,	σβεννυ

which follow the second class of the verbs in μι, while—

φθα	(7)	pres. stem	φθανο
πι	(15)	,,	πινο
φθι	(16)	,,	φθινο
ἀδ	(29)	,,	ἀνδανο
ἱκ	(34)	,,	ἱκανο or ἱκνεο

follow the thematic nasal class, in all 9. The rt. βα (1) vacillates between the reduplicated present and the nasalised form expanded by an ι as well.

In the 3rd class numerically come the presents of the ι-class, which is always thematic. They are—

κλα	(3)	pres. stem	κλαζο
κτι	(14)	,,	κτιζο
κταν	(26)	,,	κτεινο
ἀλ	(27)	,,	ἀλλο
ἐλελιγ	(32)	,,	ἐλελιζο
παλ	(40)	,,	παλλο
βλα	(43)	,,	βαλλο
σκλη	(45)	,,	σκελλο

8 in all. Moreover the rt. γαν, γεν vacillates between the first and third classes. Perhaps too δυ (17), λυ (20), κλυ (19), φυ (23) belong to this 3rd class by reason of their vacillating quantity—a question we shall have to consider later.

But a small number of the stems form their present thematically with an addition to the vowel-sound—only the following 4: πνυ πνεο (21), συ σευο (22), χυ χευ (24), ἁδ ἡδο (29), for the last of which there is ἀνδανο as well.

There are 7 presents which are characterised by the thematic vowel alone, and consequently belong to the 1st class of thematic verbs: δεκ δεκο or δεχο (31), εὐχ εὐχο (33), λεγ λεγο (36), περθ περθο (41), σεπ σεπο (46), κελ κελο (35), σεχ σεχο (47). For the last there is ἰ-σχο as well.

πλη (44) and πελαζο, τλα (43) and ταλαο stand by themselves, and 203
γεν (30), λεχ (37) had no present-stem at all.

The conclusion then to which this investigation brings us is, that beyond a certain preference discernible for the reduplicating method, there is *no* fixed principle which can be said to have ruled the formation of the presents. We shall often make this same discovery later on, and we may formulate it thus: the tense-stems of the Greek verb are by no means mutually bound together by fixed and pervading analogies, but they combine in the freest manner to form a whole, to form, that is, a single system of verbal forms.

CHAPTER VI.

THEMATIC PRESENTS FORMED WITHOUT ANY FURTHER STRENGTHENING OF THE STEM.

In the introduction to this book we found that the vowel which distinguishes *τί-ο-μεν, τί-ε-τε* from *ἴ-μεν, ἴ-τε* is an element belonging to the present-stem of a great number of verbs. At p. 9 we attempted to discover its significance as an element in verbal structure, and the name we give it as the result of this investigation is *thematic*. Contrasted with other vowels which in dealing with other verbal forms we have seen occasionally arise and make monosyllabic roots into dissyllabic stems, the vowel which we name thematic *κατ' ἐξοχήν* is an *a*-sound which from the first was prevailingly short, but was occasionally lengthened, and was subjected in every Indo-Germanic language to the most definite laws both as to its quantity and its quality. In Sanskrit the only change it undergoes is one of quantity. The *a* is short as a rule, and only long before *m* and *v*:

Sing.	*bhár-ā-mi*	*bhár-a-si*	*bhár-a-ti.*
Pl.	*bhár-ā-mas*	*bhár-a-tha*	*bhár-a-nti.*
Dual	*bhár-ā-va*	*bhár-a-thas*	*bhár-a-tas.*

204 This change of quantity can, as Bopp saw (Vgl. Gr. ii.² 290), hardly have been primitive. In the 1st pl. and 1st du. the long vowel appears only in Sanskrit and the nearly related Zend. All the other languages leave the vowel short in the plural; *φέρ-ο-μες, fer-i-mus*, Goth. *bair-a-m*, Ch.-Sl. *ber-e-mŭ*, so do the Lithuanians and Slavonians in the dual; Lith. *vež-a-va*, Ch.-Sl. *vez-e-vě*. In the 1st sing., as we showed on p. 29 f., the length of the vowel in *φέρω* and the Lat. *ferō* has to do with the loss of the termination. It would be a remarkable thing that in this one form the vowel should have been lengthened for no discernible reason before the personal termination fell away. For this reason we adopted Ascoli's thoroughly established assumption that we must start from a primary **bhar-a-mi* which in Greek was once **φέρ-ο-μι*.

In respect of the quality of the thematic vowel, we have to notice a regular interchange of *e* and *o*. In this respect Greek and Latin almost entirely coincide in the ind. pres. act. We may assume the primary forms to have been—

**λέγο-μι*	*lego-m(i).*	*λέγο-μες*	*lego-mas* (?).
**λέγε-σι*	*lege-s(i).*	*λέγε-τε(s)*	*lege-tes.*
**λέγε-τι*	*lege-t(i).*	*λέγο-ντι*	*lego-nt(i)* (cp. p. 46 f.).

The *e*-sound then shows itself before *s* and *t*, and in this Gothic (*vigis, vigith, vigith*) and Church-Slavonic (*veze-šĭ, veze-tĭ, veze-te*) coincide as well, the *o*-sound before nasals, while in all cases the vowel remains an *a*

with the Indians and Iranians. The same is the case with the two dual-forms λέγετον, ἐλεγέτην, with the forms of the preterite ἔλεγες, ἔλεγε(τ) and ἔλεγον as 1st sing. and 3rd pl. The only doubt that could arise is with reference to the 1st plur. in Latin, since the prevailing vowel here is *i*. It might be thought, in the face of the Skt. *váhāmas*, Goth *vigam*, Lith. *vežame*, Ch.-Sl. *vezemŭ*, that the Lat. *vehi-mus* came from *vaha-mas* by way of the intermediate stage **vehe-mus*, and that it never went through the stage **veho-mus* suggested by the analogy of λέγομες at all. But it can hardly be accidental that *volu-mus*, *su-mus*, *quaesu-mus* have a *u* before the termination. It is probable rather, considering the tendency shown in historical times to attenuate a *u* before *m* in the middle of a word to *i*, that we ought to assume a **vehŭ-mus*, and a still older **vehŏ-* 205
mus, or perhaps even **vehŏ-mas*, for it is hard to say what the vowel of the final syllable was at that time. The relation of *vehimus* to ἔχομες would then be the same as that of *septimus* to ἕβδομος. We get the same simple rule for the Greek middle voice from a comparison of—

φέρο-μαι	with	*φέρε-σαι.	ἐφέρο-ντο	with	φερε-σθε.
ἐ-φερό-μην	,,	*ἐ-φέρε-σο.	φερό-μενος	,,	φερε-σθον.
φερό-μεθα	,,	φερε-ται.			ἐ-φερέ-σθην
φέρο-νται	,,	ἐ-φέρε-το.		and	φέρε-σθαι.

Here again the participle φερόμενοι is confronted by the Lat. *ferimini*, for which, as for *vehimus*, we are inclined with equal probability to assume an older form with a heavier vowel, on the ground of forms like *alu-mnu-s vertu-mnu-s*. Attention should be paid to the deviation from this rule that *o* comes before a nasal shown by the Homeric infinitive active ἐλθέμεναι, εἰπέμεν, by which means the fine sense of the Greek tongue was able to distinguish in the easiest way between active infinitives and middle participles.

It is true that the forms we have here assumed as primary are not always evident at first. In the 2nd and 3rd sing. an ι has become attached to the thematic ε. What is the relation of—

λέγεις to the Lat. *legis* and Skt. *váha-si*
and of λέγει to the Lat. *legit* and Skt. *váha-ti*?

This is a question to which we must now give the answer we deferred to give when dealing with the personal terminations. As the forms of the various Greek dialects have an importance for the proper settlement of the question, we will first give them as far as we can.

For the 2nd sing. there is good testimony for only the Doric by-form in ες, i.e. in συρίσδες Theocr. 1, 3, ἀμέλγες 4, 3, and that of Apollonius περὶ ἀντωνυμ. 119 to ποιές. In the last word the widespread tendency of the Dorians to shorten final syllables in spite of contraction that has taken place and consonants that have been lost (ἰαρές=Att. ἱερεῖς, δεσπότᾱς from δεσπότᾱνς) has actually left only ες out of the original εεσι. Other branches of Doric, if we may judge from Aristoph. Lysistr. 206
180, 1013, had the Attic form.—It is established by Anecd. Oxon. i. 71, 22 that the Boeotians pronounced it λέγις (Ahrens, Aeol. 189). On the other hand we cannot be sure about the Lesbian ης which the M.SS. sometimes give, in particular at Alcaeus fr. 52 Bε.[3]: πώνης, which Ahrens (Aeol. 91) is most likely right in rejecting, though Bergk (Lyr.[3] p. 931) again defends the ης on the ground of an obscure and very

corrupt passage in Apollonius Dysc. Bergk regards both η and ει as lengthenings compensatory for the loss of the final ι, in which case the series would be εσι ες ης, εις. How untenable this assumption is we shall try to show later on.

For the 3rd sing. ει was Doric as well, and is shown by ἴϝει (Alc. 34, 1) to have been Lesbio-Aeolic, so that ἀδικήη=ἀδικήει, an isolated form occurring at Sappho I, 20, cannot be trusted, and has been rightly exchanged for ἀδικήει. Lastly the Boeotians pronounced it λέγι.

These dialectic forms prove conclusively that the primary Greek forms were—

*λέγεσι *λέγετι.

λέγεσι lost its ι and became λέγες as *τίθη-σι became τίθης. The Doric λέγες of which the final syllable has lost the mark of a primary tense, exactly corresponds to the Lat. *legis* and the Goth. *vigis*. The Dorians however preserve a trace of the lost ι in the accent, provided the tradition is to be trusted which gives us ἀμέλγες, συρίσδες. λέγεις on the other hand, though it likewise has lost its final ι, did not lose it, as Bopp saw, till epenthesis had taken place. Midway then between *λέγεσι and λέγεις came *λέγειστι. In the epenthesis or anticipatory sound (*Vorklang*) we have the same process by which ἐνί became εἰνί and εἰν (Princ. ii. 334 ff.). This explanation has it is true been attacked by Bergk, who maintains (Philol. xxix. p. 319) that in the old alphabet the Greeks wrote ΔΟΚΕΣ, and since then Bergk has actually called attention (in Fleckeisen's Jahrb. 1878, p. 190) to a form ΚΑΛΕΔΟΚΕΣ in an inscription on a vase found at Locri, in Southern Italy, and already edited at Corp. Inscr. Graec. iii. no. 5770. But so isolated a spelling, occurring in a private inscription, is no foundation for the explanation of a form, especially as during the period immediately preceding the introduction of the new alphabet into Attica—and this is in Bergk's view the date of the vase—the letters E and EI, representing, as they did, sounds which had then at all events become very much like each other, were often interchanged (Cauer, Stud. viii. 230). Moreover, the explanation that
207 the ει owes its existence merely to the 'endeavour to secure compensation'—'ut damnum resarcirent' Bergk says in the note on the Lyric poets quoted above—is one which utterly fails to content us, inasmuch as we now regard compensatory lengthening not so much as of an external mechanical nature, and can assign more of a definite limit to its action by laying it down that a vowel is never made long except by the influence of consonants directly following it which have been gradually fading away (Brugman de productione suppletoria Stud. iv.).

An utterly different theory as to the relationship of these forms has been propounded by Corssen after Alb. Dietrich (Ztschr. f. Alterthw. 1847, p. 710 ff.) in his work on the Pronunciation of Latin,[2] i. p. 600 ff. He believes that in the Gk. forms in εις, ει we have parallels to the forms *scrībīs*, *agīt* which, though very rare and therefore impugned by some, and otherwise explained by others, do occur in Latin, and since it is impossible to explain these Latin forms by epenthesis—for Latin knows nothing of epenthesis—he regards the long syllable in both languages as the result of 'intensification.' There are however good grounds to be given for not adopting this view. In the first place, there is no reason why the thematic vowel should be intensified at all. It is certain that

of all the formal elements in the verb it is that which has least significance, and for this reason we have regarded its lengthening, when, as in *ā-mi ā-mas*, Gk. and Lat. *ō*, it has actually taken place, as by no means an intensification due to the effort made by language to emphasise particular syllables, but as a mechanical lengthening, one, that is, which has been brought about by the influence of the succeeding consonants. Conscious that ει merely viewed phonetically would even in Attic be a remarkable intensification of ε, Corssen has recourse to Doric and Aeolic. But there is nothing to be gained by the production of what he calls the Doric and Aeolic η, for, as we have seen, the η in these persons has but a slender authority. In the 3rd sing. we actually find a Doric ει abundantly established by inscriptions, and this strict-Doric ει of the Heracleic tables (e.g. ἐφορεύει tab. Heracl. i. 122, ἀποτεισεῖ ib. 109, φυτευσεῖ 114, ἐμβαλεῖ 115, ἐξεῖ 130), as well as forms like βρέμει, σίζει, φέρει in Epicharmus would anyway be incomprehensible as an intensifica- 208
tion of an ε.[1] Then the assertion (p. 602) that 'there are other instances in the Attic dialect of the appearance of an ει where the Doric and Aeolic dialects have η, as the regular intensification or lengthening of ε' is decidedly incorrect. Intensification of an ε produces η in *all* Greek dialects except Boeotian, which shifts every η to ει—e.g. rt. μελ perf. μέ-μηλε, rt. ἐδ ἐδ-ήδ-ο-κα. The Homeric forms θείης, θείη for θῇς, θῇ, which Corssen brings forward, prove nothing, for we shall see below what slender support these forms have. In θείς, τιθείς to which he also appeals, ει has arisen by compensatory lengthening, and hence Argolic has -ενς, Heracleic -ης. And granting that there were cases in Homeric Ionic in which ει had taken the position of an older η which arose by intensification, this ει would be absolutely inconceivable in strict Doric, for it is one of the many characteristics of this dialect to hold fast by an η even when it has arisen from compensatory lengthening or contraction, and all the more when it has arisen by intensification. We dealt on p. 40 f. with the 3rd persons sing. in -ησι which are properly speaking not 'Doric' but are exclusively peculiar to Ibycus, and which are at variance with all the testimony of inscriptions as to this personal termination. The Boeotian λέγῑς λέγῑ do not suit Corssen's hypothesis either. Where could an ῑ, which the Boeotians substitute only for a truly diphthongal ει, be an intensification of an ε? It is ει that is the Boeotian representative of a primitive Greek η. There still remains a conclusive argument against Corssen's view. If we are not to suppose that the ει of λέγεις, λέγει arose from an echo of the ι which once was in the final syllable, what explanation is to be given of the η in the conjunctives λέγῃς λέγῃ? I do not think anyone will say that η has been 209
'intensified' to η. The ι here is so firmly established, e.g. in the Heracleic dialect, that besides νέμῃ, φέρῃ, λάβῃ there are also instances

[1] The warm defence of his theory which Corssen has put into his *Beiträge zur italischen Sprachkunde* (p. 484 ff.) contains no fresh grounds for it. The suggestion that the ει which appears at this place among all Dorians with the single exception of the above-mentioned forms in -ησι used by Ibycus—which moreover are suspicious by reason of their σ—is due to 'Attic influence,' of which there is (e.g.) in Epicharmus not the faintest trace besides, will convince no one. The statement that ἐφορεύει on the Heracl. tables is 'completely isolated' has no foundation. It is quite a mistake to call ἔθεικε an 'Aeolic,' i.e. a Lesbio-Aeolic form. It is Boeotian. The 3rd pl. ἴεισι in Sappho he has confounded with the 3rd sing. etc.

of conjunctives with what is apparently *η* shortened to *ει*, like *γράψει*, *ἀποθάνει*, which serve as confirmation for the indicatives.[2] There is no other possible explanation of this *ι* except that it is an anticipatory sound, an echo of the following *ι*, and when we consider that *λέγῃς* corresponds to *λέγεις*, *λέγῃ* to *λέγει* precisely as *λέγητε* does to *λέγετε*, *λέγησθε* to *λέγεσθε*, it cannot be doubted that the *ει* of *λέγεις*, *λέγει* arose in the same way as the *η* in *λέγῃς*, *λέγῃ*.

This brings us to an explanation of the 3rd sing. which differs from that which we have adopted. Schleicher, Comp. § 275, assumes, in his account of the change from **φέρε-τι*, *φέρη-τι* to *φέρει*, *φέρῃ* an intermediate **φέρε-σι φέρη-σι*. This hypothesis, again, can be easily refuted by a reference to the dialects. It is only the Ionic dialect that shows the weakening of *τ* before *ι* to *σ*. Here then a **φερε-σι* is conceivable, and *φέρῃ-σι* and the like do occur over and over again in Homeric Greek. But we must take quite another way to account for the Doric forms. How are we to think that the same stems which produced *φα-τί*, *ἴσα-τι* and the like were faithless to their *τ* here? Consequently Schleicher's intermediate **φέρεσι *φέρησι* cannot be allowed for the Doric *φέρει*, *φέρῃ*. *φέρῃσι* is an old form which is specifically Homeric and came directly from *φέρητι*. In other cases the final *ι*, after it had exercised its influence upon the preceding syllable, disappeared, so that the series was as follows :—

**φέρε-σι*	**φέρη-σι*	**φέρε-τι*	**φέρη-τι*
**φέρει-σι*	**φέρῃ-σι*	**φέρει-τι*	**φέρῃ-τι*
φέρει-ς	*φέρῃ-ς*	**φέρει-τ*	**φέρῃ-τ*
		φέρει	*φέρῃ*.

210 This explanation accounts completely for all the sounds in the various forms. The assumed **φέρειτι* corresponds exactly to the *baraiti* of Zend, and the conj. **φέρῃτι* to an *avāiti* (he may go) in the same language. A Greek parallel to the phonetic changes we have assumed is to be found in the form *ποῖ* (= Zd. *pai-ti*) as is pointed out by Allen Stud. iii. 271. In the Et. M. 678, 44 we read : *ποῖ παρὰ Ἀργείοις ἀντὶ τοῦ ποτί, ἀφαιρέσει τοῦ τ, εἶτα συνόδῳ*, and there is something very like it in the Delphic *Ποιτρόπιος* the name of a month meaning *Προςτρόπιος* (supplicatorius). Three instances of the form *ποῖ* are given in the collection of inscriptions edited by Foucart and Le Bas (vol. iii. no. 157). We thus get the following proportion : *ποῖ* : *ποτί* :: *φέρει* : **φέρετι*.—Finally we must, on account of the similarity of their formation, call attention to the Aeolic forms of the 3rd sing. of the verbs in *μι*, discussed by Ahrens Aeol. 137. *τίθη*, *ἴστη*, *δίδω*, which are given by grammarians, have, like *φέρει*, *λέγει*, lost the consonants of the personal termination. Since a final *ς* is not in the habit of disappearing, we must undoubtedly refer these

[2] The inconsistencies in the use of the *ι* adscriptum, discussed by Ahrens *Dor.* 294, prove nothing more than that this sound began to vacillate early. There is a genuine old witness to the *ι* in *ἀποθάνει* in the Laconian inscription of Xuthias in the old alphabet *Ἀρχαιαλογικὴ Ἐφημερὶς* B, *ιγ*. Who will believe that the *ι* has made its way in here on the analogy of some indicative or other? If the *ει* of the indicative really arose as Corssen thought, it would of necessity have been written E in the old alphabet, and in the conjunctive an EI would be more inexplicable still.

to *τίθητ, *ἵστητ, *δίδωτ, forms which would stand on the same footing as *φέρειτ. The Lesbio-Aeolic γέλαι, if, as is probable, it owes its ι to epenthesis, would exactly correspond to φέρει, λέγει.

The special character of this kind of present-formation appears most clearly in the case of roots which end in a consonant. In present-forms like ἄγω, πλεκό-μεν, πέτο-μαι, βλέπε-τε, μένει we are sure that nothing else has been added to the root to form the present-stem but the thematic vowel. The number of such roots is large. According to the computation given below it is 109, and these may be arranged in groups according to their final consonant. Present-stems with a long vowel have been nearly all excluded from the list, because it is possible that the long vowel might be due to intensification.

Roots in κ.

δέρκομαι *ἔκω, in the part. ἑκών, ἕλκω κρέκω ὀλέκω πλέκω and (only in Hesych.) τύκω (ἑτοιμάζω).—Total 7.

Roots in γ. 211

ἄγω ἀμέλγω ἀμέργω εἴργω λέγω (ἀλέγω) νύγει (τῷ κέντρῳ πλήττει Hesych.) ὀρέγω στέγω στέργω τέγγω φέγγω (Aristoph.) φθέγγομαι φλέγω ψέγω.—Total 14.

Roots in χ.

ἄγχω ἀρίχεται ἀρόχεται explained by γλίχεται by Hesych., ἄρχω βρέχω γλίχομαι δέχομαι (Ion. δέκομαι) ἐλέγχω εὔχομαι ἔχω *λεχω or λέχομαι, deduced from Hesychius's καλέχες· κατέκεισο Πάφιοι, for which perhaps Meineke is right in reading κα-λέχεο i.e. καταλέχεο, μάχομαι ὀρύχω (ὀρύχοιεν Arat. 1086) ῥέγχω σπέρχω στίχω (Lobeck Rhemat. 67) τρέχω. I have omitted ἰάχω, because it might be thought a reduplicated form, also ἔρχομαι and others because their χ has apparently arisen from the σκ of the inchoative class.—Total 16.

Roots in τ.

ἄντομαι λίτομαι (hymn. Hom. 16, 5, 19, 48, Aristoph. Thes. 313) πέτομα.—Total 3.

Roots in δ.

αἴδομαι ἄρδω ἔδω ἕλδομαι μέδω πέρδομαι σπένδω τένδω (Hes. Ἔργ. 524) ὕδω (λέγω Hesych.) and the doubtful ψέδω (ἐντρέπω, φροντίζω Hesych.). —Total 10.

Roots in θ.

ἄχθομαι ἔθω ἔχθομαι ὄθομαι πέρθω, while those whose θ is or may be

the characteristic of the present—e.g. *ἐρέχθω* by the side of *ἐρείκω*, *ἔσθω* by the side of *ἔθω* have been omitted.—Total 5.

Roots in *π*.

βλέπω δρέπω ἕλπομαι (ἐν)έπω ἔπω ἕρπω θάλπω λάμπω λέπω μέλπω πέμπω πρέπει ῥέπω σκέπω (late by-form of *σκεπάζω*) *τέρπω τρέπω*.—Total 16.

Root in *β*.

βλάβεται only T 82, 166, *ν* 34 and Anacreontica 31, 26 Be.

Roots in *φ*.

γλάφω γλύφω γράφω γρίφω (Hippocr.) *δέφω* (*ἀπο*)*δρύφω* (?) *ἐρέφω μέμφομαι στέφω στρέφω τρέφω ψέφει* (*δέδοικε, λυπεῖ* Hesych.), to which we may add *νήφω*, which a closer examination (Stud. II. 440) shows to be not open to the suspicion of being intensified.—Total 12.

Roots in *ν*.

212 *μένω πένομαι σθένω στένω*, while *ἄνω* (cp. *ἀνύω*) is omitted because the *ν* is possibly a characteristic of the present, *φθάνω* because its *ν* is certainly such.—Total 4.

Roots in *μ*.

βρέμω γέμω and another *γέμω* in Hesychius (*ἀπόγεμε· ἄφελκε*), treated of at Princ. ii. 246, *δέμω θέρμω*, which occupies a peculiar position as a denominative (cp. *θέρω* and *θερμός*), *νέμω τέμω* (N 707) *τρέμω*.—Total 8.

Roots in *ρ*.

δέρω θέρω, more often *θέρομαι ὄρομαι* (*ὄρονται, ὄροντο* *ξ* 104, *γ* 471) *πτάρω* (Aristot.) for which some editors want to read *πταίρω, φέρω στέρομαι*.—Total 6.

Roots in *λ*.

βόλομαι (Hom.) *θέλω κέλομαι μέλω πέλω*.—Total 5.

Roots in *σ*.

ἔρσω (Nicander) *τέρσομαι*.—Total 2.

Roots in *ξ*.

ἀέξω ἀλέξω ὀδάξω.—Total 3.

Roots in *ψ*.

δέψω ἕψω.—Total 2.

I have omitted ἔῤῥω because the origin of the ῥῥ is ambiguous, as also σφίγγω in the γ roots because the nasal looks as if it were a present strengthening, though this is by no means so clear in forms like τέγγω, φέγγω, φθέγγομαι, ἐλέγχω, πέμπω, μέμφομαι. Our list might possibly however suffer a loss from this reason.

It is very remarkable how the vowels are divided among these stems. Lobeck noticed this. Though he does not confine himself to the class of verbs now occupying us, he says, while further developing the remarks of some old grammarians (Rhemat. 50): 'Nulla sunt verba quae alpha breve in penultima pura habent, antecedente et succedente consona simplici, perpauca crassioris structurae βλάβω, γράφω, φθάνω, nam plerumque assumitur consona auxiliaris δάκνω, ἅπτω.—Creber vero secundae vocalis [ε] usus λέγω, στέγω.' As we should put it the statement would run thus: 'Verbal-stems with an *a* hardly ever make a present-stem with no further addition than that of the thematic vowel, unless the stem contains heavy groups of consonants, and hence ε is the more frequent.' As a fact 84 of the stems just given have ε, while *a* occurs 213
only 13 times and the remaining vowels almost exclusively in out-of-the-way and isolated specimens. The linguistic sense of the Attics seems to have discerned this affinity between ε and the present stem, and hence ἔτραπον became the aorist and ἔτρεπον the imperfect. The Dorians preferred an *a* next to a ῥ: τράπω, τράφω, στράφω, τράχω, Locr. φάρω (Ahrens Dor. 117, Allen Stud. iii. 219). Greek shows herein a noteworthy agreement with Latin. In Latin too presents like *emo*, *veho*, *tero*, are extremely common, while presents like *alo*, *molo*, *coquo* are rare. We can enumerate 16 presents in which the two South-European languages show the same vowel; 13 with *e*: βρέμω=*fremo*, δέψω=*depso*, if this is not a borrowed word, ἔδω=*edo*, ἔννεπε=*in-sece*, ἕπομαι=*sequor*, λέγω=*lego*, ὀρέγω=*rego*, πέρδομαι=*pêdo*, πέτομαι=*peto*, ῥέπω cp. *rĕpens*, στέγω=*tego*, τρέμω=*tremo*, φέρω=*fero*; two with *a* in both languages: ἄγω=*ago*, ἄγχω=*ango*; one with *o*: Homeric βόλομαι=*volo*. Seeing that the North-European languages, which we cannot examine here, show a widespread tendency[3] to change a primitive *a* in a similar position to *e* (Goth. *ai*) or even to *i* (Goth. *baira*=Ch.-Sl. *berą*, Goth. *ita*, Lat. *edo*), we may venture to conjecture that even in the period before the separation of the European languages there was in these cases no pure *a* but either an *e* or an *a* that tended to turn into an *e*. Cp. my essay 'Ueber die Spaltung des A-Lautes.' Ber. d. k. sächs. Ges. d. Wissensch. 1864. It is somewhat surprising, at first sight, to find that in present stems, which in general are prone to fuller forms, it is the weakest of the hard vowels that prevails, and that this prevalence is specially prominent in Graeco-Italic. The influence of the accent, which has only in Sanskrit a direct effect upon the formation of the present, will be found quite inadequate to explain this phenomenon, at all 214
events in Greek and Latin. It would be absurd to pre-suppose a *φερώ =**ferô* or a *φερῶμι=**ferômi* in order to get from the Sanskrit *bhárāmi*

[3] I am indebted to the kindness of A. Leskien for the fact that in Church-Slavonic out of 73 verbs with an unintensified *a*-sound 57 have *e*, 6 *a*, 4 *o*, and 6 *ŭ* as the vowel of the present-stem.—Armenian, in which Hübschmann's investigations (*Ztschr.* xxiii. 33) have shown the vowel system to agree widely in other points with the Indo-Germanic, has but rarely—e.g. *berel* bear—an *e* at this place.

to *φέρω* and *fĕro*. I should be inclined rather to venture on the assumption that the thematic vowel, which began early in most though not in all forms to weaken itself to *e*, exercised an assimilating influence on the vowel of the root. Then the weakening would have gradually extended itself from forms like **φέρεσι *φέρετι φέρετε*—as is also conjectured by Bréal, Mémoires de la Société de Linguistique ii. 169—to such forms as *φέρω* for **φάρω*, *φέροντι* for **φάροντι*. If such was the genesis of the *ε* in the root it would be easy to see why strong groups of consonants were able to preserve the old vowel e.g. in *ἄγχω*, *ἄρχω*, *ἄντομαι*, *λάμπω*. Even so, it is true, we do not get an adequate explanation for all instances and this is a thing we can hardly hope to do. But it is all the clearer as a fact in the history of language that at this place *e* was from very early times the favourite vowel.

Besides the consonantal there are apparently a very considerable number of vocalic roots which follow this rule in their present-formation. Omitting entirely the denominative verbs with the wide-spread derivative terminations *αω εω οω ενω*, which the comparison of the related languages shows undoubtedly to have lost a *j*, we have so-called pure verbs like *δράω ζέω κίω λύω*, which the old grammatical theory reckoned as peculiarly primitive verbs, so that e.g. Lobeck puts them at the head of his Rhematicon, under the belief that the fuller forms grew gradually from simple formations of this kind by the accretion of sounds and syllables. The wider views opened out to us by the comparative study of languages oblige us on the contrary to hold it far from probable that two vowels, the radical and the thematic, especially if they were both *a* at first, stood next to each other from the beginning. It would be hard to find forms in Sanskrit and Zend which could be compared with *δράω* as a primitive formation. Such a juxtaposition of vowels is probably always due to the loss of spirants. The dropping of spirants between vowels is one of the most extensive and fundamental characteristics of the Greek lan-
215 guage. And for a number of such verbs we can clearly establish such a loss, though this is not the only process that has been at work. It is often the case in the life of language that what looks primitive turns out on closer inspection to have been already defaced, and so it is here. A portion of these presents can be shown to have lost a present-strengthening which they had at an earlier time. Lastly we have to consider the cases in which the transition has taken place from the conjugation in *-μι* to the thematic conjugation. We will discuss the forms in question from these three points of view.

We can be sure of the loss of a *σ* in the following present-forms:

1) *βδέω* compared with the Lat. *vis-io*, Lith. *bez-dù* (Princ. i. 284) and the substantive *βδέσ-μα*.

2) *ζέω* compared with the Skt. *jas* (Princ. i. 471), O.H.G. *jesan*, and *ζέσ-σεν*, *ζέσ-μα*, *ζεσ-τός*.

3) *νέομαι* compared with the Skt. *nas* (Princ. i. 391) and *νόσ-το-ς*, *νίσ-σο-μαι* (for *νεσ-jο-μαι*).

4) *τρέω* compared with the Skt. *trásā-mi* (Princ. i. 277) and *τρέσσε*.

5) *λάω* I wish, compared with the Skt. *lásha-mi*, Lat. *las-civu-s*, Goth. *lus-tu-s* (Princ. i. 450).

6) The forms of the rt. *ἑς*, which, like *ἐών*, conj. *ἔω*, opt. *ἔοι* have assumed the thematic inflexion.

In other cases the same loss is at least very probable, e.g. in *χρίω*, which shows a *σ* in *χρῖσμα*, *χριστός* and agrees completely with the Skt. *gharsh* (Princ. i. 251), in *ἐρύω* draw with *ἔρυσσα*, for which, as I think I have shown at Stud. vi. 265 ff., we get a stem *ϝερυς*, which only differs from the Lat. *verro vers* in having developed a *υ* between the *ρ* and the *ς*. Leskien (Stud. ii. 85 f.) conjectures the same final *ς* for other verb-stems besides, on the ground of the sigma which appears in aorists and nominal forms, as for *θλάω*, *κλάω*, *μύω* (Princ. i. 419), *ξέω*, *ξύω*, *πτύω*, *ἐράω*, *σπάω*. Even though this classification, the etymological investigation of which we cannot proceed with here, should be doubtful in many cases, of this much we may be sure, that a not inconsiderable portion of the pure verbs owe the juxtaposition of the vowels to the loss of a *σ*, which naturally took place at an early period when such a juxtaposition was as yet not found disagreeable.

The loss of a *ϝ* is not so often demonstrable. It would be the case 216
with *ἄω* satiate if it really belongs to the Skt. rt. *av* (Princ. i. 483, cp. Fick Wtb.[3] i. 24). The Homeric *λάων* (Princ. i. 452) must have come from **λαϝ-ων*, and *φά-ε* from **φαϝ-ε* (Princ. i. 369).

In some other cases we can conjecture the loss of a *j*, but the *j* is of quite a different character. Under this head importance attaches to the statement of the Et. M. 254, 14 *τὸ φύω Αἰολικῶς φνίω φασὶ καὶ τὸ ἀλύω ἀλνίω*, relying on which Ahrens (Aeol. 98) has received *φνίει* into the text in Alcaeus fr. 68 (Bergk[3] 97). Support is given to this formation, as Schleicher (Beitr. iii. 248) was the first to recognise, by the Umbr. *fuia* (=Lat. *fuat*) and *fuiest* with the meaning *erit*, and perhaps in the phenomena from Keltic and Teutonic languages which Schleicher there discusses. This as good as proves that *φύω* arose in the same way from *φνίω* as *τιμάω* from *τιμαjω*, *φιλέω* from *φιλεjω*. In my Studien iii. 398 I have called attention to the fact that the fluctuations in vowel-quantity shown by the verbs in question must be due to the after-effect of a lost spirant. This very fluctuation is observable in *φύω*. Homer knows only the short *υ* in the present stem, but at Aristoph. Av. 106 we read—

πτεροῤῥυεῖ, κᾆτ' αὖθις ἕτερα φύομεν,

and there are more instances in other Attic poets. It is only apparently therefore that *φύω* belongs to our present class; really it belongs to the *ι*-class, inasmuch as it once had the syllable *ja* added to its root as a present-expansion. The fact thus established will serve as an analogy for similar conjectures about other verbs in *-νω*, of which we now deal only with such as are root-verbs.

θύω has in Homer a long *υ* as a rule: *οἴδματι θύων*, *δάπεδον δ' ἅπαν αἵματι θῦεν*, *θῦε δ' Ἀθήνη*, but at *o* 260 it is short: *ἐπεί σε θύοντα κιχάνω*. On the quantity in Attic poets cp. Ellendt's Lex. Soph. (2nd edit.). Here too the fluctuation of quantity is explained if we start from *θνίω*, and this is not only a presumable but an actually occurring form. Hesychius has the gloss *ἔθνιεν· ἐμαίνετο, ἔτρεχεν*, and in virtue of this Ruhnken, at hymn. in Merc. 560 reads *θνΐωσιν* instead of the manuscript *θνΐσωσιν*, and in this later editors have followed him. It is from this stem too that the *θνιάδες* get their name.

In accordance with all this we shall not scruple, even where the 217
form with *ι* is not to be found, to refer irregularities of quantity to the

same source, and especially in the case of λύω and δύω. That the root-vowel in λύω was short is manifest from λέλῠκα, λέλῠμαι, λῠτο, ἐλῠθην. In the present, by the side of Ὀδυσεὺς λύε μώνυχας ἵππους K 498, Homer has ἀνδράσι νείκεα λύει η 74. With the Attics the long vowel prevails in the present. (Cp. Ellendt, Lex. Soph. 2nd edit. s. v.) The case clearly stands thus: the present was originally *λνίω after the manner of the ι-class, and the long vowel due to the diphthong was extended to the future and the aorist which are always prone to follow the present in the matter of quantity. In the case of δύω the long vowel is somewhat more persistent.

There remains finally a special class of forms of the kind; those which have in the course of time abandoned the primitive method of the so-called conjugation in -μι, for thematic method of formation which was increasingly becoming the rule. Forms like ἴω, ἴοιμι, ἰών can hardly have existed from the first by the side of such as εἶμι, ἴμεν, ἴτε. The α of ἤια, the ε of ἰέναι, ἰείην, with which we had to deal at p. 121, was perhaps not distinct from this ο originally, that is, perhaps the latter arose from the former. Above all however we may conjecture a proportionally late origin for the thematic vowel where, as e.g. in ἐράω by ἔραμαι, ἐρύω by ἔρυσθαι (cp. above, p. 122) and most of all in δεικνύω by δείκνυμι, ὀμνύουσι by ὀμνύασι, κιρνᾷ by κίρνημι, the said vowel added itself to an already dissyllabic stem, thus making it trisyllabic. This is a plain case of the gradual spread of an analogy. We may say that the thematic vowel has in such cases quite another formative or etymological value from that which it has in φέρω, ἔχω and other presents of the kind. Present-forms such as used to be given as themata from Philoxenus's time, were not quite so rare in the usage of the various dialects as might be supposed. Hesychius has φᾶν· λέγειν which Nauck (Mélanges, iv. 29) regards as an infinitive like the rare forms δῦν, δοῦν discussed by me in Chap. XV. Of the same kind is προστᾶν (=προστῆναι) in an inscription
218 from Erythrae. Lobeck (Rhem. 5) discusses the traces of a βάω which appear most clearly in the Heracleic ἐπιβῇ tab. Heracl. i. 68. We may be sure of the forms προβῶντες Cratin. Com. ii. 88, and ἐκβῶντας in a Doric contract in Thuc. v. 77. θέω=τίθημι occurs, notwithstanding all that has been said about it, in the much disputed προθέουσιν A 291, and perhaps in ἀνέθει C. I. no. 1195. ἑλάω is abundantly attested as Doric (Ahr. 341).

Whether or not there are many more pure verbs that do not fall into any of these four categories I cannot say. It might be hard any way to prove that presents like κλύω, ὖει, δίομαι are not just as genuine and unmutilated formations as λέγω, ἄγει, only even here we occasionally find by-forms which at least make it credible that a consonant should have been lost. To κλύω correspond the Lat. *cluo* and *clueo*, to δίομαι the Skt. *dīj̄āmi*. It is possible of course that in both cases a *j* has been lost which we should have to regard as a formative element. Still less credible must it appear that such a harsh hiatus as that in νέω=Lat. *neo* should have existed from the beginning. As a fact O.H.G. in this instance gives the forms *nâjan* and *nâwan* as well as *nâan*. A historical consideration of verbal development makes it quite clear that this first class of thematic presents is like a stream, which, though slender at first, becomes gradually swollen by a large number of tributaries pouring

into it from left and right, until at last it becomes itself by far the broadest stream of all. Especially after the immense number of denominative verbs in *αω*, *εω*, *οω*, *νω* had lost their *j*, the predominance, the hegemony as it were, of this formation was assured. Still in this great river we are able at least partially to distinguish by their colour the various tributary streams that have become united in its bed.

CHAPTER VII.

STEMS WHICH LENGTHEN THE VOWEL IN THE PRESENT.

219 In a considerable number of present-forms, besides the thematic vowel which attaches itself to the end of the root, we notice a strengthening of the vowel in the middle of the root as well. As examples we may take *τήκω* as compared with *ἄγω*, *τεύχω* as compared with *γλύφω*. It seemed to us above (p. 10) that this strengthening was due to the need for giving a stronger emphasis to the root to suit the durative meaning it acquires in the present-stem. Vowel-intensification, or addition of sound, constantly meets us in noun-formation, e.g. in *τηκε-δών*, *τεῦχος*, as well as in the present-forms above-mentioned—in *πειθώ* as well as *πείθω*—though in Greek there is often a shade of difference between the two kinds, as may be seen from *λοιπός* by the side of *λείπω*, *ἀρωγός* by the side of *ἀρήγω*. It would be hard, therefore, to find any other principle underlying this process than that of the tendency to emphasise, and if we were right in explaining the present-stems with thematic vowels to have come originally from noun-stems, this agreement between nouns and verbs becomes intelligible at once. In the one case the language chose the lighter, and in the other the heavier nominal form to denote the lasting action. The choice, however, between the two forms, between the first and second class that is, was determined by certain phonetic analogies, in which Greek agrees to some extent with Sanskrit. In the first place, intensification never takes place except before a single consonant. This is distinctly the rule for the Sanskrit Guna. In Greek intensification would at most be conceivable in the case of the few verbs like *ἄρχω*, *ἄγχω*, which would make them **'ἄρχω*, *'ἄγχω* (though there is nothing to make us think they were so intensified), for verbs with *ι* or *υ* before two consonants, like such Indian roots as *kunth*, *nind*, *niksh*, are unknown in Greek, with the two isolated exceptions *σφίγγω*, where the nasal was evidently from the first an element in the stem-formation, and *στίλβω*, where the *ι*, as Westphal, Method. Gr. ii. 94, conjectures,
220 arose by weakening from *ε*. On the other hand, both languages have evidently a dislike to presents with the short vowels *i*=*ι*, *u*=*υ*, and this has been already noticed in the case of Greek at p. 145. Forms like *γλίχομαι*, *λίτομαι*, *ὕδω*, *γλύφω*, *ἀποδρῦφοι*, which at Ψ 187=Ω 21, can also be an opt. aorist, *ὀρύχω* (only in Aratus), *τύκω*, *νύγω* (only in Hesych.) stand as isolated in Greek as are in Sanskrit verbs of the so-called 6th class like *rihā́-mi* (cp. the rt. *lih* lick), *viçā́-mi* (enter, Gk. *ικ*), *vidhā́-mi* (honour, serve), *mukā́-mi* (loosen, also *muñkā́-mi*), *duhā́-mi* (milk, also *dōh-mi*), *tud-ā́-mi*. For a large number of Sanskrit verbs ending in nasals, or in *ṛ* shortened from *ar*, or in vowels, which are put into this class, are of quite a different nature, and seem to some extent to be specifically Indian. Latin, too, has but little of the kind to show. There

is no instance of a present with a short *i* before a simple consonant without any expanding present-strengthening, and probably the only instance of a short *u* is *fŭr-o*, whose 1st pers. sing., according to Neue, Formenl. ii.[2] 609, does not occur. If Fick,[3] i. 163, is right in comparing *furit* with the Skt. *bhurâti* (he quivers, palpitates, is restless), we should have here a direct agreement even in the present-formation. *Con-sul-o*, in which the *u* may have been weakened from *a*, is a compound, and therefore does not concern us here. *Tul-o*, which is given as an antiquated word, is only found in conjunctive forms, and therefore looks more like an aoristic form, of which more anon. Moreover, the *u*, as *tollo* and the Gk. τάλ-ᾱς show, came from an older *a*. The nature of the vowels in the North-European languages is in harmony with the rule just given. According to Leskien, there are in Church-Slavonic only two instances of a non-intensified *i* which has to appear as *ĭ*, and the same number of a non-intensified *u* which has to appear as *ŭ* (*čĭt-a-tí* he counts, *sŭp-a-tĭ* he pours).

Consequently we can lay it down as a general tendency of all languages of our stock to expand, either by intensification or in some other way, roots with a short *i* or *u*. This intensification, however, does not stop here. Even roots with an original *a*-sound, which in the great majority of cases leave their vowel unchanged, occasionally get strengthened in a similar way. In the case of *i* and *u* the intensification is diphthongal, to effect which in Greek recourse is almost always had to ε, while in that of *a*-sounds it is monophthongal. We do, however, find ῑ 221
and ῡ where we should expect ει and ευ. To almost all these processes exactly corresponding analogies occur in Sanskrit.

A radical *i* becoming a Gk. ει, Skt. ē (i.e. *ai*), λιπ λείπω, cp. Skt. *sidh*, *sédhā-mi* (go).

A radical *u* becoming Gk. ευ, Skt. ō (i.e. *au*), φυγ φεύγω, cp. Skt. *ush ṓshāmi* (burn, cp. Lat. *uro*), while the rt. *bhuǵ* (bend), which corresponds to the Gk. φυγ, forms its present *bhuǵā-mi* with no strengthening, like an imaginable Gk. *φῡ́γω.

To a radical *i* monophthongally intensified to ī, such as we have in the Gk. ἴκω, I know of no parallel in Sanskrit. But we find ū as an intensification of *ŭ* in *gūhāmi* (veil) by the side of the Zd. *gaozaiti* and κεύθω.

The lengthening of *ă* to *ā*, which is elsewhere unknown in the Indian present-formation, appears in *krāmā-mi* (go, by the side of *krámā-mi*) from the rt. *kram*, *ā-ḱāmā-mi* (sup up, by the side of the simple *kámā-mi*) from the rt. *ḱam*, *klāmā-mi* (tire), rt. *klam*, with which we may compare the Dor. λᾰ́θω by the side of λαθ, the ordinary Greek σήπω by the side of ἐσᾰ́πην.

Latin has preserved but very meagre traces of diphthongal intensification in the formation of the present, and even in the few instances that occur it is clear that the real diphthong, especially in the case of *ei*, very early retired in favour of the simple long vowel, and the Old-Lat. *deico* (=Osc. inf. *deik-um*), *feido*, *douco* (*abdoucit* C. I. L. no. 30) by the side of *causi-dĭc-u-s*, *fĭd-ē-s*, gen. *dĭc-is* are probably the solitary remains of the actually existing diphthongal formation. For, in *caed-o*, by the side of the related *scindo*, *scid-i*, the *ae* is permanent all through the verb. On the other hand, presents which show a long vowel as contrasted with a short vowel elsewhere are somewhat more numerous:

besides *dīco, dūco, fīdo,* there is *lābi* by *lăbare, vādere* by *vădum, sīdere* by *sĕdēre, nūbere* by *pronŭba, trūdere* by *trŭdi-s,* a pole for thrusting with. That the long *i* and *u* correspond to diphthongal intensification elsewhere is proved by *ûro* by the side of the Skt. *ósh-mi* in the same, and the Gk. *αὕω* in a related sense, and by *trūdo* by the side of the Goth. *us-thriuta, dīco* by the side of the Goth. *teiha, fīdo* by the side of *πείθω*. The latter pair is probably the only one in which Greek and Latin have received the same additional sound in the present tense. Greek agrees
222 with Sanskrit in *αὕω*=*óshā-mi, πεύθομαι*=*bódhā-mi,* with Sanskrit and Gothic in *γεύω*=*gósha-mi* Goth. *kiusa,* with the Teutonic language only in *στείχω*=Goth. *steiga,* in *φεύγω*=Goth. *biuga,* and also in *λείπω* if Fick is right in comparing with it the Goth. *leihva,* I lend, give up. It is remarkable that in Teutonic languages the vowel *i* is intensified just as in Greek to *ei,* not *ai,* while *u* becomes *iu,* which anyhow comes very near to the Greek *ευ*. The *iu* of the Goth. *biuga* bears evidently just the same relation to the *ευ* of *φεύγω* that the *i* of the Goth. *ita* bears to the *ε* of *ἔδω*=Lat. *edo*. From the latter agreement we draw the conclusion that before the separation of the Indo-Germanic languages the old short *a*-sound began to be pronounced more clearly, that is, more like *e*. So we have an equal right to conclude that in such present-formations of the same period of the language's history the old *au* became *eu,* or some sound not far off *eu,* and this is certainly another remarkable instance of unanimity between the European languages. May not possibly the long *e*-sound of the Ch.-Sl. *bĕgǫ,* Lith. *bĕg-u*=*φεύγω*, have originated in the same primitive *eu*? However that may be, it is certain that the *e*-sound of these verbs has something to do with the Gk. *ευ*.

Now that we have in this way learnt to see the common foundation that underlies the phenomenon now under consideration, we will turn to the Greek forms in particular, and try to bring to light their number and their variety. It would be possible, in attempting a review of all the forms now under consideration, to set to work on a, so to speak, historical principle, making it of prime consideration in the classification whether there is a real and living addition of sound, made inside the verb, and forming an element in the verbal structure, as, for instance, in *λείπω ἔλιπον, φεύγω ἔφυγον*; or whether the intensification has become petrified and lifeless, and therefore so far useless for purposes of verbal formation. But a closer examination reveals many intermediate cases—intensified present forms which, though they have no unintensified verbal forms in common use, have still isolated or rare verbal or nominal forms, either without any intensification or intensified in a different way.
223 Moreover, it is no doubt often only an accident of tradition that in one case we know of a form that comes nearer to the root than the present, and in another we do not. It is, therefore, more prudent to proceed on the statistical principle, and to put first cases of diphthongal, and next cases of monophthongal intensification, and within each of these main divisions to divide the verbs according to their fundamental vowels. In order, however, that due attention may be had to the historical principle, every present that has no forms containing the pure root in living use is marked with a †.

I. DIPHTHONGAL INTENSIFICATION.

A) Roots with an ι.

1) (†) *ἀείδω*, cp. Princ. i. 307. No form shows the root-vowel *ι*, but in *ἀοιδός ἀοιδή* we get the parallel and somewhat heavier diphthong. *ἀηδών* on the other hand points to a rt. *ϝεδ*, to be compared with the Skt. *vad* speak, *vand* praise. In the Alexandrine *ὕδω* we have the weakest form in which the root occurs. Joh. Schmidt (Indogerm. Vocalismus i. 126) here as elsewhere attributes the change of an original *α*, Gk. *ε*, to sounds of the *i*-series to the influence of a nasal in the group of consonants which follows it, making *ἀείδω* stand for **ἀ-ϝένδω*. In that case there would be no intensification at all here. Still there is no instance in which we can be sure that *ειδ* arose out of *ενδ*. Consequently I hold by the hypothesis of a stem *ἀϝιδ* by the side of *ἀϝεδ*, like *σκιδ* and *σκεδ*.

2) (†) *αἴθω*. The unstrengthened root can be made out from *ἰθαίνεσθαι· θερμαίνεσθαι* (Hesych.) and a few other Greek forms given at Princ. i. 310, as well as from the Skt. *indh* burn, *iddhás* kindled. A similar intensification occurs in Skt. *édhas* fire-wood, Lat. *aedes*, O. Ir. *aed* fire.

3) *ἀ-λείφ-ω*. The radical *ι* appears in *ἀλήλιφα* (Demosth.), *ἀλήλιμμαι* (Thuc.), conj. aor. pass. *ἐξαλιφῇ*, well attested at Plato Phaedr. 258 b, also in the Homeric *λίπ' ἐλαίῳ, λίπος, λιπαρός* (Princ. i. 330). A different intensification in *ἀλοιφή*.

4) (†) *ἀμείβω* is very similar to *ἀείδω* in its formation. As has been pointed out at Princ. i. 402, we are brought to a root *miv* (Skt. *mīv* 224
shove), while *ἀμεύω* and *mov-eo* start from *mav*. A different intensification in *ἀμοιβή*.

5) *εἴδομαι* with the meaning appear, resemble, used from Homer onwards by poets and by Herodotus: *τὸ δέ τοι κὴρ εἴδεται εἶναι* A 228, *μάντεϊ εἰδόμενος* N 69, *νῦν δὴ εἴδεται ἦμαρ* N 98, *προεείδεται* (resembles) Aesch. Choeph. 178. *φάσμα εἰδόμενον Ἀρίστωνι* Hdt. vi. 69. That besides this there was a middle *εἴδομαι*=*ὁρῶμαι* with the meaning see (Kühner, i. 807) is scarcely credible, and still less credible that in the *προειδόμενος* occasionally given by single M.SS. (Thuc. iv. 64, Aesch. i. 165) there exists an aorist participle 'with an augment' as we are often told. Without a doubt the true reading is *προϊδόμενος*. For no one will prefer to admit a completely isolated deviation from the primeval course of Indo-Germanic verbal formation instead of assuming what is a very ordinary copyist's mistake.—The distinction between the two forms of vowel sound is preserved in *εἴδεσθαι* and *ἰδέσθαι*, while in *οἶδα* (*ϝοῖδα*)= Skt. *véda* Goth. *vait* we have a different kind of intensification. Sanskrit makes the present *vēd-mi* with no thematic vowel.

6) (†) *εἴκω* yield. There is no trace in Greek of verbal forms with a short vowel or a different intensification. It is probable though that we have the short vowel in *ἴχ-νος* track and the Lat. *vic-es, vic-issi-m* (Princ. i. 166).

7) Whether there is a present *εἴκω* corresponding to *ἔοικα, εἴκελος, ἴκελος* depends on the interpretation of a single passage Σ 520:

οἳ δ' ὅτε δή ῥ' ἵκανον ὅθι σφίσι εἶκε λοχῆσαι,

where εἶκε is usually translated 'it seemed good,' but I. Bekker Homer. Bl. i. 137 has maintained on good grounds that εἶκε belongs to εἴκειν yield and is used like παρείκειν, ὑπείκειν in the sense 'it suited, came in their way.' The fact that ἔοικέ μοι with the inf. in the sense required here is not Homeric makes decidedly for Bekker's view.

8) εἴκω is the Doric for ἵκω or ἥκω (Ahr. 344), attested by two passages in Epicharmus (Ahr. pp. 439 and 440) ἐπεὶ δέ χ' εἴκω οἰκάδις and συνείκῃ (οὐ γὰρ μὴ συνείκῃ non conveniat) C. I. 2140. Since the short
225 vowel occurs in ἱκέσθαι, ἱκάνειν etc., the intensification here is in full force. The gloss ἵκαντι· ἥκουσι in Hesychius is enough to make it doubtful whether εἴκω and ἥκω are not both really perfect-forms.

9) (†) ἐπ-είγω with petrified ει, with perhaps a cognate diphthong in the αι of αἰγίς (Princ. i. 221). *εἴγω is exactly like the Skt. *ēǧā-mi* which also has a permanent ē. The short vowel has survived in the rt. *ing.*

10) ἐρείκω by the side of the aor. ἤρικε P 295 and the later ἐρήριγμαι. If Fick[3] i. 742 is right in comparing the Skt. *rikh* scratch, an older form for *likh*, *rēkhāmi* exactly corresponds in its formation to the Gk. present.

11) ἐρείπω by the side of the aor. ἤριπε E 68, ἐριπέντι Pind. Ol. 2, 43, pf. κατερήριπε Ξ 55, clearly related to ῥίπτω.

12) (†) λείβω. Hesychius has the suspicious by-form λίβει· σπένδει. Elsewhere the ῐ appears only in nouns: λῐβάς, λῐβός, λιβρός, with an οι in λοιβή.

13) λείπω, probably the verb which among all of this class has maintained in full force for the longest period the vowel-intensification in contrast to the other shorter forms, for ἔλιπον, λιπεῖν, λιπών, λιπέσθαι to which is to be added λιπῆναι (doubtful in Homer and not clearly attested till later), are, along with λέλοιπα to be found from Homer on to the very latest times. The same formation of the present-stem is to be seen in the Lith. *lëkù* inf. *lìkti* remain, and in the Goth. *leihvan* mod. Germ. *leihen* lend, if, as I am inclined to think, Fick[3] i. 753 is right in connecting it with λείπω. The present λιμπάνω, which occurs here and there from Thucydides onward, is closely related to the Skt. *riṇáḱmi* and the Lat. *linquo.*

14) (†) λείχω. From the shorter stem are formed λιχμάζω, λιχμάω, λιχανό-ς, and a different intensification occurs in compounds like αἱματολοιχός (Aesch.). Lat. *lingo* : λείχω :: *linquo* : λείπω.

15) (†) νείφει, which is the spelling prescribed by Herodian (ed. Lentz ii. 554), and established by good M.SS. at Thuc. iii. 23 and iv. 103. Our editions mostly have ῑ, but I. Bekker at M 280 writes νειφέμεν. The short vowel in νίφα (acc.), νιφάς, νιφετός, νιφόεις. Cp. Joh. Schmidt Zur Gesch. d. Vocal. i. 134, Gust. Meyer in Bezzenberger's Beiträge i. 82.

16) πείθω by the side of the Homeric πέπιθον, poetical ἔπιθον, πιθέσθαι and πεπιθέσθαι, πέποιθα, plupf. 1st plur. ἐπέπιθμεν, πιστός,
226 πίστι-ς, so that the contrast between the vowels is in full force, as it is to some extent also in the related Latin *fīdo* (old Lat. *feido*), *fīdu-s* by the side of *fid-ē-s*, *fidē-li-s*, *foedus.* Whether or not there is anything like this parallelism between Greek and Latin in the related languages, depends on the question whether πείθω, as Fick i.[3] 699 and Bugge Stud. iv. 380 maintain, corresponds to the Goth. *beidan* or not. Cp. Princ. i. 325 and Joh. Schmidt Vocal. i. 126.

17) (†) *στείβω*. The short vowel is preserved only in *στίβος* and *στῑβέω*. *στοιβή* stuffing belongs in meaning to a different set of words. Since the rt. *στιβ* shows many points of connexion with the rt. *στεμφ* in the meaning stamp, tread, some probability attaches to Joh. Schmidt's conjecture (Vocal. i. 129) that in *στείβω* there is properly speaking no intensification but a compensatory lengthening following upon the loss of a nasal (*στεμβ* for *στεμφ*, *στιμβ*, *στιβ*), especially as in Xenophon (Kühner i. 909) good M.SS. occasionally give *στίβω* for *στείβω*.

18) *στείχω* by the side of the aor. *ἔστιχον* Π 258, though Hesych. knows also of a present *στίχουσι*, which has been adopted by recent editors at Soph. Antig. 1128 (chorus). The Gothic *steig-a* corresponds in the same way to the Gk. *στείχω* that the Goth. subst. *staiga* does to *στοῖχο-ς*, while *στίχο-ς* finds a counterpart in the Ch.-Sl. *stĭza*. Princ. i. 240.

19) *φείδομαι* by the side of the Homeric *πεφιδέσθαι*, *πεφιδήσομαι*. Its etymology is not clear.

B) Roots with the Vowel *υ*.

1) (†) *αὔω*, kindle (cp. *ἐναύω*). There are no by-forms with the short vowel, which however may be deduced from the Skt. rt. *ush* burn and perhaps the Lat. *us-tu-s*. The presents *αὔω* (for **αὐσω*), Skt. *ṓshāmi* and *ūro* for **ous-o* coincide exactly in their vowel.

2) (†) *αὕω*, make dry, also written *αὔω*. The rough breathing is however established by *ἀφαύω* (Aristoph. Equ. 394), to which perhaps we may add *καθαναίνω*, said to be Attic. The rt. is the Indo-Germ. *sus* make dry, Skt. *çush* (for *sush*), Zd. *hush*, cp. the Ch.-Sl. *suchŭ* dry (adj.), Fick i.[3] 230.

3) (†) *γεύω*, with no by-forms with the short vowel, which appears in the Skt. *ǵush*, *ǵushé* by the side of *ǵṓsha-s*, the Lat. *gus-tu-s*, the Goth. *kus-tu-s*. The rare present-formation in the Skt. *ǵush ǵṓshāmi* and that of the Gk. *γεύω* for **γευσω* and the Goth. *kiusa* coincide exactly. 227

4) (†) *δεύκω*, *φροντίζω* only in Hesychius, and clearly connected, as Lobeck Rhem. 59 says, with the Homeric *ἐνδυκέως*. It would probably be too bold to assume connexion with the root *δυκ* discovered by Roscher (Stud. iv. 199).

5) *ἐρεύγομαι* as early as *ε* 438. In spite of the difference of meaning the aor. *ἤρυγε* bellowed Υ 403 can hardly be separated from this word. The Attic present is *ἐρυγγάνω*. With *ἐρεύγομαι* the Old-Lat. *ē-rūgit* (Princ. i. 222) completely coincides, with *ū* = *ευ*.

6) (†) *ἐρεύθω*. The stem *ἐρυθ* survives in *ἐρυθρό-ς* = Skt. *rudhirá-s*, Lat. *ruber*, and *ἐρυθαίνω*. The subst. *ἔρευθος*, like the Skt. derived adj. *lṓhita-s*, and unlike *rŭbor*, shows an intensified vowel.

7) (†) *εὔω* singe, which must be identical with *αὔω* no. 2.

8) *κεύθω* poetical from Homer onwards with the by-form *κευθάνω*, aor. *κύθε* *γ* 16, *κεκύθωσι* *ζ* 303, pf. *κέκευθε*. In Sanskrit we find the very singular *gūhā-mi*, for **kūdh-ā-mi*, for which we should have expected **gṓhā-mi*. Here then, as in the verbs given on p. 158, monophthongal intensification has taken the place of diphthongal. On the initial see Princ. i. 322.

9) (†) *νεύω*, to be compared with the Lat. *nuo* and *νυστάζω*, *νύσταλος*, perhaps with the Vedic *nu* (*nava-tē*) turn oneself (Fick[3] i. 652).

10) (†) *νέω* for **σνεϝω* swim, *ἔ-νννεο-ν*, *ἔ-νευ-σα*. The root appears in Skt. as *snu* flow, swim. Princ. i. 396.

11) *πεύθομαι* by the side of *πυνθ-άνο-μαι*, both in Homer, *πυθέσθαι*, *ἄπυστος*. Except in voice *πεύθομαι*, the Skt. *bŏdhā-mi* and the Gothic *ana-biuda* exactly coincide.

12) (†) *πλέω* and

13) *πνέω*

for *πλεϝjω*, **πνεϝjω* will be discussed in Chapter XI. along with *θέω* (run).

14) *ῥέω* for **σρεϝω* by the side of *ἐρρύη-ν*, *ἐρρύη-κα*, *ῥυτός* (Eurip. Hippol. 122) corresponding exactly to the Skt. *srávā-mi*. Cp. Princ. i. 439.

15) *σεύω* by the side of the aor. *σύ-το* discussed on p. 130, pf. *ἔσσυ-μαι*. This verb, which is apparently confined to poetry, reminds us by its
228 present of the Aeolic *πνεύω*. Anyhow the difference between it and *πλέω* and *πνέω* is remarkable.

16) (†) *σπεύδω*. A variety in the intensification is to be seen in *σπουδή*. To get at the primary vowel of the root we must go to the Lat. *stŭd-eo*, *stŭd-iu-m* (Princ. ii. 360).

17) *τεύχω* by the side of *τετυκεῖν*, *τετύκοντο*, *τέτυκτο*, *τυκτός* and *τυγχάνω*. There is nothing quite analogous in the related languages (Princ. i. 271).

18) *φεύγω* by the side of *ἔ-φυγ-ο-ν*, *πεφυγμένος*, *φυγή*, *φυγάς*. Sanskrit has the unstrengthened *bhuǵā-mi*, but the Goth. *biuga* stands on the same level as *φεύγω*. There is a by-form *φυγγάνω* from Aeschylus onwards.

19) *χέω* stands for *χεϝjω* and is discussed in Chap. XI.

20) (†) *ψεύδω*. In this verb the diphthong is quite petrified, but *ψύθος* = *ψεῦδος*, *ἔψυθεν· ἐψεύσατο* (Hesych.) retain the primary form of the vowel (Princ. ii. 142).

II. MONOPHTHONGAL INTENSIFICATION.

A) Roots with hard Vowels.

1) (†) *ἀρήγω*, with no form from the shorter stem, which however is to some extent replaced by the related and expanded *ἀλέξω* (Princ. ii. 147). A variety of vowel is shown by *ἀρωγός*, *ἀρωγή*, by the side of *ἀρηγών*.[1]

2) (†) *διώκω* may be put here on the ground of the possible connexion with *διάκονος* discussed at Princ. ii. 309.

3) *ἥδομαι* (Dor. *γάδεσθαι* Hesych.) by the side of *ἀνδάνω* from the rt. *σϝαδ*. *ἥδεται* corresponds exactly to the Skt. *svādatē* (Princ. i. 282). The forms *ἔᾶδον*, *ἀδεῖν* in spite of their meaning being not quite the same and approximating rather to that of *ἀνδάνω*, justify us in saying that the intensification is in full force here. The active *ἥδειν* rejoice is given by Pollux iii. 98 from Anacreon, and this is not the only place where it occurs. The same intensification is to be seen in *ἡδύς* Dor. *ἀδύς*.

4) (†) *θήγω* Dor. *θάγω* shows in the Doric forms *τεθωγμέναι*, by the
229 side of *τεθαγμένοι*, *θωχθείς* by the side of *θᾶξαι* (Ahr. Dor. 182) all in the meaning *μεθύσαι*, *μεθυσθῆναι* a certain fluctuation in the vowel. Its origin is obscure.

[1] I do not venture to give as a present in actual use *δήκω ὄθεν ἔδακον* given by Herodian i. 436.

5) *κήδω* Dor. *κάδω* by the side of the Homeric *κεκᾰδών*, *κεκᾰδήσομαι* cp. *κῆδος*.[2]

6) (†) *λήγω*. We are inclined to see a trace of a short root-vowel in *λαγάσσαι· ἀφεῖναι* (Princ. i. 224). The *η* anyhow does not favour Bugge's connexion of the word with the rt. *λεχ* (Stud. iv. 335).

7) *λήθω* Dor. *λάθω* frequent from Homer onwards by the side of *λανθάνω* in both active and middle. There is also the isolated *ἐκ δέ με πάντων ληθάνει ὅσσ' ἔπαθον η* 221, in a causative sense, thus furnishing a present to the Homeric *λέλαθον*, which like the ordinary Greek *ἔλαθον*, *λαθεῖν*, *λαθέσθαι*, Hom. *λελαθέσθαι* preserves the short root-vowel. With *λήθω* agree the nouns *λήθη*, *ἐπιλήσμων*, with *λαθεῖν λάθρα*.

8) (†) *μήδομαι* poetical from Homer onwards, even in Pindar with an *η* and not **μάδομαι* as we might have expected. The *η* is only countenanced by the subst. *τὸ μῆδος* (cp. *Μήδεια*) and *μήστωρ*. It is undeniably related to *μέδομαι*, though *η* by the side of a radical *ε* is as isolated in this relation as is that in the perf. *μέμηλε* by the side of *μέλει*.

9) *σήπω* by the side of *σαπήῃ* T 27, *ἐσάπην* Hdt. and Attic writers, with the Attic *σᾱπήσομαι* ; cp. *σαπρός* by the side of *σηπεδών*.

10) *τήκω*, Dor. *τάκω*. The short vowel occurs in the Attic *ἐτάκην* and the later *τᾱκήσομαι*, as also in *τᾱκ-ερός* by the side of *τήγανον*, *τηκεδών*.

11) *τμήγω*. *ἀποτμήγουσι* Π 390, the short vowel in *διέτμαγον η* 276, *τμάγεν* (3rd pl. aor. pass.) Π 374.

12) *τρώγω* as early as Homer by the side of the Attic *ἔτραγον* and *τράγος*.

13) (†) *φώγω* by-form of the pres. *φώζω*, *φώγνυμι*. No trace of the short vowel unless possibly in *φοξός* and *φοξίχειλος* discussed at Princ. i. 232. Cp. the O.H.G. *bahhu*.

B) Roots with Soft Vowels. 230

a) *ῑ*.[3]

1) *θλίβω*. The *ῑ* in the present is established by Aristoph. Ran. 5, fragm. 12 Mein. (*θλίβομαι*), for the *ῑ* in the aor. pass. *ἐθλίβην* we have no proof. Theocritus 15, 76 has *φλίβομαι*, which is only a dialectic form of the verb, with a long *ι*.

[2] *κλώθω*, if it is rightly connected (Gust. Meyer n. Pr. 18) with the synonymous Vedic *kart* (with aspiration of the *t*?), also belongs to this class (cp. Lat. *crātes* and Joh. Schmidt Voc. i. 422).

[3] Gustav Meyer in Bezzenberger's *Beiträge* i. 81 discusses most of the forms given under this head, and in so doing maintains that *ῑ* has in many cases taken the place of an older *ει*. I have repeatedly called attention to the same fact. When he goes on to say at p. 83 that 'the assumption of the lengthening of vowels for the purpose of present-formation is *devoid of support*,' there is surely a misunderstanding here. That the Greeks turned *ῐ* into *ῑ* with this object I have never maintained, only that *ῑ* (as the successor of *ει*) exercised this function by a traditional right of long standing. The *ει* is itself the successor of an *ai*, and both *ῑ* and *ει* alike exercise the function of characterising the present-stem. Moreover I have admitted into the list in the text forms in which the *ῑ* of the present is possibly of older standing than the corresponding *ῐ* in other forms. The same remarks apply to the stems with a *ν*.

2) ἵκω, poetical from Homer onwards by the side of ἵκέσθαι, is of special importance as an instance of monophthongal intensification taking the place of the diphthongal, since in this case the diphthongal form has survived. Cp. no. 8 on p. 154.

3) (†) νίφει, apparently a corrupt form of νείφει given at no. 15 on p. 154.

4) πνίγω. The long ι in the present-forms is as clearly established by passages in the Attic comedians as is the short ι in ἀπεπνίγην.

5) (†) τίω (Homeric τίω and τῖ́ω, Attic τίω) falls into this class. The long ι (ἄτῑτος N 414, in another sense ἄτῐτος Ξ 484) occurs in Homer not only in arsis: e.g. E 467 ὃν ἶσον ἐτίομεν Ἕκτορι δίῳ, but also in thesis: ξ 84 ἀλλὰ δίκην τίουσι by the side of Δ 257 περὶ μέν σε τίω. That the length of this ῑ is not due, as might be supposed, to the running together of the ι with a following *j* as is the case with the ῡ of λύω (see p. 148), is made probable by the following well-attested forms on Doric inscriptions: ἀποτεῖσει, ἀποτεισάτω, Τεισάνωρ (Ahrens, 184), and the Locrian ἀποτείσῃ (Allen, Stud. iii. 231), to which may be added numerous Attic
231 examples from classical times like Τεισαμενός, Τεισίας (Cauer, Stud. viii. 253). Cp. Sauppe de titulis Tegeaticis, Proemium to the Lektionskatalog of Göttingen 1876–77. The diphthong in these forms must have the same origin as that in λείψω, ἔπεισα, Πείσανδρος, and points therefore to a present τείω, which agrees exactly with the Skt. middle *kā́j-ē* from the corresponding root *ki* (Princ. ii. 93). This form of the present occurs in the Arcadian imperative ἀπυτειέτω (Gelbke, Stud. ii. 27, Joh. Schmidt, Vocal. i. 142), which is enough to remove all doubt on the subject. Still, the testimony of the Homeric verse is enough to prove that among the Ionians the diphthong gave place before vowels to the long ι at a very early time. If not it would be inconceivable that the shortening of the vowel, which was the rule in Attic Greek, should have begun in Homer's time. Cp. τίνυμαι p. 113.

6) τρῑ́βω. The short ι is well established in ἐτρῐ́βην, e.g. Aristoph. Eccles. 1068, also in τρῐβήσομαι, e.g. Soph. O. R. 428 κάκιον ὅστις ἐκτριβήσεταί ποτε. Cp. φρῡ́γω below.

b) ῡ.

1) (†) στῡ́φω. The ῡ in ἐνστύφω is established by passages from Nicander. The short vowel is represented by στυφλός, στυφελός by the side of στῡφός.

2) τῡ́φω by the side of ἐτῠ́φην, τῠφήσομαι. Cp. Soph. Ant. 1009 κἄτῡφε κἀνέπτυε and Aristoph. Lys. 221 ὅπως ἂν ἀνὴρ ἐπιτυφῇ μάλιστά μου. The nouns τῡφο-ς, τῡφεδών, τῡφεδανός, τῡφών have a long υ, τυφλός alone, if it belongs here, is a witness to the ῠ. The corresponding Skt. rt. *dhūp* has the vowel always long (Princ. i. 281).

3) φρῡ́γω. Aristoph. Ran. 511 ἔφρυγε κῶνον ἀνεκεράννυ γλυκύτατον. ῠ in the passive aorist: Anthol. Palat. vii. 293, 4 πλόῳ πεδηθεὶς ἐφρύγη δίψευς ὕπο. φρύγανον follows the quantity of the present. It certainly looks, from what Delbrück says at Stud. i. 2, 136, as if the long vowel here, as in τρίβω, preceded the short one.

4) ψῡ́χω. The ῡ in the present-forms is established by Λ 621 ἱδρῶ ἀπεψύχοντο χιτώνων, the ῠ in the passive aorist by Aristoph. Nub. 151, where Dindorf after Moeris, p. 214 Bekk. (ψυχῆναι Ἀττικοί, ψυγῆναι

Ἕλληνες) writes ψυχείσῃ. The χ I regard here, as in other verbs (τρύχω, βρύχω, σμήχω, σμώχω, see Princ. ii. 365 ff.), as a mutilated inchoative σκ. The change therefore between ῡ and ῠ must be regarded in this 232
word, somewhat as in the case of no. 3, as a secondary phenomenon. Perhaps the same reason may account for the length of the root-vowel in ψῡχή ψυχρός ψῦχος.

In all, then, the number of the verbs which follow this class, when we have subtracted 2 (εἴκω—ἴκω, νείφω—νίφω), which are given twice, and the more than doubtful εἴκω=ἔοικα (no. 7), is 58. In 30 of them the distinction between the fuller and the shorter form is in full force as an element in the verbal formation. When compared with the first class this number must seem remarkably small.

CHAPTER VIII.

THE T—CLASS.

This class of present-stems brings us into a sphere in which there is no longer the amount of agreement noticeable in the previous classes between the formations of Greek and those of the related languages. We shall therefore be prepared to find that during the periods of which we have linguistic records the prominence of such present-stems becomes greater as time goes on. In this respect there is a decided contrast between this class and the preceding. Almost all the really living forms belonging to the lengthening-class may be regarded as an inheritance of great antiquity, while the same can by no means be said of the class now under consideration. This contrast will be visible in a still wider area of phenomena as we proceed with our investigations. It will further appear that the formations of later periods are always the result of the affixing or the transformation of consonants, while the power of the vowels to change their character is evidently on the decrease.

233 Various explanations have been offered of the way in which *τύπτω*, *βάπτω*, *βλάπτω* arose from the roots *τυπ*, *βαφ*, *βλαβ*. In my 'Tempora und Modi,' p. 83 ff., I regarded the process as a purely phonetic strengthening. This view was specially based on a few cases, in which, as in *πτόλις* beside *πόλις*, *πτίσσω* beside *pinso* and the Skt. *pish*, the *πτ* was, at the stage at which the science had then arrived, pretty generally taken to be a purely phonetic strengthening of the simple labial explosive. The careful investigation of the parasitic nature of the *j*, and the consonants which develop themselves before a *j*, has led us on beyond such views as this. And then, as Grassmann (Ztschr. xi. 40) aptly remarks, even though—as I cannot admit—a 'supporting' dental, as others have called it, could in a manner sprout forth out of a guttural or a labial, still after a radical *β* we should expect *δ* not *τ*, and after *φ*, *θ*. Consequently forms like *βλάπτω*, *βάπτω* would, even on the above very doubtful theory, remain incomprehensible.

Driven then from the purely phonetic explanation, we shall look equally vainly to that offered by Bopp at Vgl. Gr. § 498 for satisfaction. Bopp thinks it possible that we ought to regard the *τ* of *τύπτω* as a transformation of the *ν* seen in *κάμνω*. But the change of *ν* to *τ* is as unexampled as it is intrinsically improbable, and this hypothesis, with which Bopp himself was so little satisfied that he proposed another as an alternative, will find no intelligent advocacy nowadays, when we are apt to be more careful in dealing with sounds.

Another attempt, however, to represent this enigmatic *τ* as the double of a consonant employed elsewhere in the expansion of the present stem, has found a good deal of acceptance; I mean that which would make the *τ* identical with the *j* which—as is now clear to all—is at the bottom

of the most various obscurations and transformations of Greek present-formations. Since I have reviewed this theory at some length in my Princ. ii. 329 ff., and since, as far as I know, no new arguments on the subject have been advanced in the meanwhile, it will be enough here shortly to summarise the reasons which compel me to reject an explana- 234
tion which has the approval of such eminent scholars as Ahrens (Formenl. 185), Grassmann (Ztschr. xi. 40 ff.), and Ebel (Ztschr. xiv. 34).

As an argument for the derivation of *τύπτω* and the like from *τυπjω* etc. Grassmann lays special stress on the fact that in this way a gap would be filled in the far-spreading multiplicity of present-formations of this kind. While dentals and gutturals along with this *j* produce *σσ* (*ττ*) or *ζ*, and with *λ*, *ν* and *ρ* it gives rise to other transformations, the labials are left out altogether, and it is at first sight a very plausible idea, that in these verbs in *πτ* we have the missing product of *j* and the labials. 'Unless,' says Grassmann (xi. 40), 'it is assumed that Greek, unlike Sanskrit, was averse to the connexion of final labials with the characteristic of the fourth class, we must conjecture that these formations lie hid in Greek . . . in the shape of other stem-formations.' There are however similar gaps elsewhere. For instance, as we saw on p. 109, there are among the presents in *-νυ-μι* none from a labial root, although Sanskrit roots of this kind by no means reject such a mode of present-formation. The absence therefore of present-forms in *πjω*, *φjω*, *βjω* would be not a bit more remarkable than is this clearly established phenomenon in connexion with presents in *-νυ-μι*. Language does not set itself to carry out in its forms systems which we have devised, but follows analogies which we cannot always expect to fathom.

A second argument for the theory in question is drawn from the fact that in one clear case at least a Greek *πτ* corresponds to a Sanskrit present-formation containing a *j*. *σκέπτο-μαι* corresponds to the Skt. *páç-jā-mi* (rt. *spaç* for *spak*), and the formation finds a support in the Lat. *spec-io* (Ebel Ztschr. xiv. 35). A second verb in which this theory would establish an agreement between Greek and Latin is *ῥάπτω*, if Bugge (Ztschr. xx. 32) should prove right in connecting this verb with *sarcio*, as to which point however I am still a little doubtful. It is possible, too, that *φάρκτεσθαι*, which we shall meet below, may be added to these two. But these parallels do not mean much after all, for cases are extremely 235
numerous in which the same roots form their presents in different ways in the different related languages.

A third argument in defence of the *j* theory is that the origin of *π-τω* from *π-jω* is phonetically a *possible* one. For as in the primary form **ghjas*, yesterday (Skt. *hjas*), a parasitic dental arose before the *j*, and by assimilation to the *χ* which came out of the *gh* became *θ*, and ultimately expelled the *j* which was the source of the whole series of changes, so *πj* might have become *πδj*, *πτj*, *πτ*, and it looks as if *πτύω* actually did arise from **πjύω* (Princ. i. 355). All the same, there is no manner of necessity that what is possible in language should have actually occurred.

Lastly, Ebel has made special capital in his argument of the verb *χαλέπτω*. This, he says, is a denominative, and *must* have come from **χαλεπjω*, like *μαλάσσω* from *μαλακός*, *ποικίλλω* from *ποικίλος*. But there is very little of the denominative in the use of *χαλέπτω*. *μαλάσσειν*

is to make soft, ποικίλλειν to make gay or many-coloured, but χαλέπτειν is by no means to make heavy, but either to press hard upon, as at δ 423, θεῶν ὅστις σε χαλέπτει, or to enrage, the latter especially in the passive χαλεφθείς enraged. Starting then from a root χαλεπ, which might have come from χαλπ, we might arrive on the one side at χαλέπτω, on the other at χαλεπός.

While, then, the reasons to be advanced *for* this view are by no means convincing, there are, it seems to me, a number of reasons *against* it which it is not easy to meet, and, in particular, in the first place, the difficulty of getting from *φj* to *πτ*, and the impossibility of getting from *βj* to *πτ*. Where there is a *φ* in the stem we should certainly, on the analogy of χθές mentioned above, expect *φθ* instead of *πτ*. It is true Ebel at p. 43 says it is possible that the sounds *φ* and *j* 'met each other half way,' and it does look as if this transition might be possible. We do see from the forms ἐλάττων, κορύττω, which have come immediately from *ἐλακjων, *κορυτjω, that the aspirate disappeared previous to the transformations produced by the *j*. It could be maintained, therefore, that this happened in this case as well, and that between *βαφ-jω and βάπτω there lay a *βαπ-jω, and that from this there arose *βαπ-διω, *βαπ-τjω,
236 βάπτω. But it is absolutely impossible to devise a means of getting from *νιβ-jω to νίπτω. To suppose that the *j*, which in all other cases exercises a softening influence, should here have been the means of hardening the *β* by the reverse of the process which produced γράβδην, κρύβδα, and other like forms, is inadmissible, and the only resource for the defenders of the iotacism of the *τ*-class would be the assumption that these verbs, which, it is true, are only three in number, followed the analogy of the *π*-formation.

A second objection to the theory lies in the existence of one or two *τ*-formations from roots which do not end in a labial. Even if objection should be taken to τίκ-τω on the ground of its *ι*, in which it does not exactly correspond to πέκτω, κλέπτω, σκέπτομαι, and τέκνον, though I doubt if such an objection would hold, there is still πέκτω left. I admit that this form does not occur in a sentence in any author. But it is given by Pollux vii. 165, and also by Hesychius. For the M.S. has πέκτει, with the explanation κτενίζει, τίλλει, κείρει, ξαίνει, and there is the less reason for altering it to πεκτεῖ, because Herodian (ed. Lentz i. 435, 436) expressly recognises the three present forms πέκω, πείκω, πέκτω. The fact that Aristophanes (Lys. 685) gives the form πεκτούμενος does not exclude the possibility of the existence of πέκτω any more than does ῥιπτεῖτε (Ar. Eccl. 507) that of ῥίπτω. The fuller forms might be expansions of the shorter, like αἰδέομαι of αἴδομαι, πιέω of *πίω (Roscher Stud. iv. 195). With πεκ-τέω we might compare ὑλακ τέω if it were not that a comparison of the Homeric ὑλάει shows the *κ* itself to be an expansion. The shorter form finds a clear support in the Lat. *pecto*, and the fact that the *t* here makes its way beyond the verb into the noun-formation as well (*pect-en*) no more condemns the comparison than would διδάσκαλος condemn our view of the *σκ*, or *conjunx* that of the nasal as an element in the present-formation. Anyone who refers πέκτω to πεκ-jω must regard as a pure chance that both languages accord so completely here. For there are no analogies to be found in Latin for the change of a *kj* to *kt*. On the contrary, forms like *jacio*, *facio*, *rapio*, *cupio*, prove that in Latin the old *kj*, *pj* survived intact as *ci*, *pi*.—

Moreover, in Latin, by the side of *pecto* are *plecto* and *necto*, and though *plecto* is distinguished by its *t* from πλέκω, it is supported by the O. H. G. *flihtu*, and the certainly related Goth. *faltha* with the guttural suppressed,=Ch.-Sl. *pleta*. Here then we have the testimony of three families of speech to the expansion of the rt. *plak* to *plact*. The formation of *necto* is not so transparent. If, however, as Fick[3] i. 124 assumes, the synonymous Skt. *nah* really comes from a primary *nagh*, we have here another instance of expansion by *t*. This Latin *t* is certainly never employed as an expansion for forming a present-stem, but Lithuanian, and in a single instance Church-Slavonic, do thus employ it. The Lithuanian verbs in which the present-stem is distinguished from the verb-stem by the addition of the syllable *-tu* are given by Schleicher, Lit. Gr. § 117. Their number is extraordinarily large. It is only the Low-Lithuanian *ei-tu*, go, which joins the *t* immediately to the stem. All the rest, unless, as in *drįs-tù* am bold, *lúž-tu* break, the root itself ends in a sibilant, insert a *s* before the *t*: *álk-s-tu* am hungry, *búg-s-tu* fear, *sirp-s-tù* ripen, *mìr-sz-tu* die. This fact, in connexion with the inchoative meaning which is to be seen in a great many of the verbs, has decided Grassmann, Ztschr. xi. 41, to identify the whole of this present-formation with the Graeco-Latin in *-sko*. In the way of this assumption, however, there is first the verb *ei-tu*, which cannot be so explained, and also the law of Lithuanian phonetics, according to which it is only before a *j* that *k* can change to *t*. The insertion or rather the evolution of a *s* as an auxiliary consonant before various other consonants is an extremely common phenomenon in this language (Schleicher, Lit. Gr. p. 72), and ought not to be denied because at first sight it is surprising. Moreover, the Lithuanian formation has the support of at least one Church-Slavonic present with a movable *t*, as has been pointed out to me by Leskien. The Ch.-Sl. *ras-te-tĭ* he grows, is related to the inf. *ras-ti* to grow, and to the rt. *rad*=Skt. *ardh* (*rdh*) grow, exactly as is the Lith. *gą́s-ta* he is frightened, to the inf. *gą́s-tĭ* and to the rt. *gand*, or as is the Gk. ἄπτει to the st. ἀψι, which has come from ἀπ-τι. 237

It being thus established that in several European languages the expansion of a root by the addition of a *t* has taken place, the *t* being sometimes a permanent addition to the stem, and sometimes confined to the present-stem alone, and that it is added to roots ending in the most various sounds, we shall be inclined to assume that this has happened also in the two Greek verbs ἀνύτω and ἀρύτω, that, i.e. the forms without the τ are the older, and that those with it are expanded. That it is impossible to suppose the reverse of this, i.e. that ἀνύω and ἀρύω came from older forms with the τ, we saw above (p. 122) in connexion with the form ἤνυτο and other related formations. When we come to deal with the thematic aorist (Ch. XIII.) we shall meet with some forms, especially ἤμαρ-το-ν and ἔ-μορ-τε-ν (Hesych.), in which the τ is of a precisely similar kind. They are preterites to the obsolete presents *ἀμάρ-τω, *μόρ-τω. The pure root is to be seen in ἀμαρ-εῖν (Hesych.) and the Lat. *mor-i*. Hence we can clearly see the following to have been the course by which the Greek forms belonging here took shape. 238

1) In a pre-Greek period there were already verbal-stems without a final *t* which were confronted by others with the *t* of pretty much the same meaning. The *t* then belongs to the class of what I have discussed at Princ. i. 75 ff., under the name of root-determinatives.

2) The existence of these pairs of forms was turned to account by several European languages, and the *t* was used as a means of distinguishing the present stem from the rest of the verb. The same use was made of other elements of the same kind, though not to the same extent, e.g. *ὀλέ-κ-ω*.

3) The Greek language confined the kind of present formation which was thus established, with the exception of the few instructive relics of its wider application, to labial roots, and in this way provided this class of roots with a regular means of forming present-stems as distinct from the stems of the verbs.

The only question left is, what is the origin of this element which we now regard as a root-determinative used as a present-expansion? The answer depends on the judgment we pass on these determinatives in general. Fick has in the 'Nachwort' to his Comparative Dictionary subjected these difficult questions to a fresh inquiry. With respect to the determinative *t* he comes, at iv.[3] p. 69, to a conclusion similar to that
239 previously arrived at by Hugo Weber (Ztschr. für Gymnasialw. 1864, p. 127), with the latter regarding the *t* as a constructive (*wortbildendes*) suffix, though he does not confine himself to the comparison of the suffix *-ta* of the passive participles. He seems rather to hold this *t* sometimes identical with the *nt* of the active, sometimes with the *ta* of the passive participles, and sometimes with the nominal suffix *-ti* (*pa-ti*). I cannot quite see my way to either view, and it seems to me that the whole question is not yet ripe for discussion. Of so much only can we, I think, be sure, that *τυπτο* (*τυπτε*) was from the first just as much of a noun-stem as *δεικνυ*, or *ἀγο* (*ἀγε*). In case a stem like *τυπτο* was of like formation with the *δοτα* contained in *δότη-ς* we should get for it the meaning of a nomen agentis, such as we conjectured for the present-stems in *νυ*, *να* and *ο*. At this place, where we cannot do more than touch upon these final and subtle questions of Indo-Germanic formation, a minute inquiry into this will not be necessary,[1] but we shall turn instead to a review of the Greek verbs belonging to the *τ*-class.

I. LABIAL STEMS.

A) Stems in *π*.

1) *ἀστράπτω* in use from Homer (I 237) onwards, with the aor. *ἀστράψαι* (*ἀστράψας* P 595). The *π* appears in the noun *ἀστραπή* (Hom. *ἀστεροπή*).

2) *δρέπτω*, a poetical by-form of the universally current *δρέπω*, first occurring in poets of the Alexandrine age.

3) *ἐνίπτω*, scold, Ω 768, Γ 438, Aesch. Ag. 590, Nicand. Ther. 347. The *π* occurs in the Hom. aor. *ἐνένῑπον*, *ἠνίπαπον*. From an older stem *ἐν-ικ* compounded with *ἐν* comes the present *ἐνίσσω* which is also Homeric (X 497, O 198). Cp. Princ. ii. 59.

240 4) *ἐνίττω*, speak to, address, only established by Pind. Pyth. 4, 201 *ἀδεί᾽ας ἐνίπτων ἐλπίδας* (cp. Buttm. Lexil. i. 285), corresponding to the

[1] I would refer the reader to Brugman's paper 'Zur Geschichte der Präsenssuffixe' in the *Sprachwissenschaftliche Abhandlungen aus G. C.'s Grammat. Gesellschaft*, p. 153 ff., where he gives also one or two analogies from Sanskrit.

Homeric future *ἐνίψω* (for **ἐν-έψω*), and consequently a fresh present-formation for *ἔννεπε*, which establishes the *π*. On the rt. *σεπ* cp. Princ. ii. 67. Cp. above p. 132.

5) *θώπτω*, a poetical by-form of the usual *θωπεύω*, Aesch. Prom. 937 : *θῶπτε τὸν κρατοῦντ' ἀεί*. Fut. *θώψω* Hesych. *θώψεις· θωπεύσεις, Αἰσχύλος.*

6) *ἰλλώπτω* (also *ἰλλωπέω*, cp. *ἰλλαίνω ἰλλωπίζω*), a peculiar compound from *ἰλλό-ς* crooked and *ὤψ*. Hesych. *ἰλλώπτειν· στραβίζειν. ἐγκατιλλώψας* Aesch. Eumen. 113. The present *κατιλλώπτειν* occurs in Philemon (Comici iv. 45), and like forms in other Comic poets and in late authors (Nauck Mélanges iv. 30).

7) *ἴπτομαι*. The present is only given by grammarians as belonging to the Homeric future and aorist forms *ἴψεται* (B 193) *ἴψαο* (Λ 454). The *π* is pretty well established by *ἶπος* trap-lid, fuller's press. Cp. Princ. ii. 59.

8) *κάμπτω*. Homer has *κάμψειν, ἔκαμψεν* but not the present, which however is common in all Greek from the Attic period onwards. The *π* is established by *καμπύλο-ς*.

9) *κάπτω*, only retained in Hesychius's gloss *ἐγκάπτει· ἐκπνεῖ* (Lobeck Rhemat. 46 note). The final letter of the root fluctuates between a primitive *π* (*καπύω*) and *φ* (*κεκαφηώς*). Princ. ii. 120.

10) *κλέπτω*, in common use from Homer onwards. The *π* in the Attic aor. *ἐκλάπην, κλοπή* etc.

11) *κόπτω*, the same, *κεκοπώς* N 60, *ἐκόπην* Aristoph., *κόπος, κοπή*.

12) *μάρπτω, μάρπτησι* Θ 405, *μάρψαι, μάρψας* etc. poetical from Homer onwards, *μεμαρπώς* Hes. Ἔργ. 204.

13) *πέπτω*, a late by-form of *πέσσω, πέττω* not occurring earlier than Aristotle. *π*, from an older *κ*, in *πόπανον*.

14) *ῥίπτω* common from Herodotus onwards by the side of *ῥιπτέω* which is Homeric (cp. *πέκτω* and *πεκτέω*) and *ῥίπτασκον* O 23. After Homer *ῥίψω* and *ἔρριψα* are very common. The *π* is established by *ῥιπή, ῥιπίς, ῥιπίζω*. The passive aor. *ἐρρίφην* shows a *φ* as well.

15) *ῥύπτω*. *ῥύπτομαι* Aristoph. Ach. 17 and later. The *π* appears in the related *ῥύπος, ῥυπόω*.

16) *σκάπτω*, first in Hymn. in Merc. 90, later in common use. The *π* is established by *σκαπάνη, σκάπετος* Princ. i. 204. But there is also a *φ* in *ἐσκάφην* (Eurip. etc.).

17) *σκέπτομαι*, from Homer onwards (P 652), *σκοπός, σκοπή, σκοπιά*. 241

18) *σκήπτω*, the same. *σκηπτόμενος* ρ 338, *σκήπων, σκηπάνιον*. From the related stem *σκιμπ* (*σκίμψαι, σκιμφθῆναι*) there appear to be present-forms only in Hesychius : *σκίμπτει, σκίμπτεται*.

19) *σκνίπτω* only in Hesych. : *σκνίπτειν· νύσσειν, καινοτομεῖν. σκνιπός* niggardly, *σκνιπότης* (by the side of *σκνιφός, σκνιφότης*) are considered to be related.

20) *σκώπτω* in common use from Aristophanes onwards. As witness to the *π* of the stem we may refer to the word *σκωπαλέος* given by Herodian, and the more than probable connexion with *σκώψ* (gen. *σκωπός*).

21) *τύπτω*, Λ 561, in use in all dialects and at all times. *ἐτύπην* Ω 421, *τύπος, τύμπανον* etc.

22) *χαλέπτω*, used by Theognis and late poets as well as by Homer, has been already discussed at p. 161 f. in its relation to *χαλεπός*.

B) STEMS IN φ.

1) ἅπτω· προτιάπτω Ω 110, ἐξῆπτε X 397, ἅπτεαι κ 379, καθάπτετο Θ 127, ἤπτετο Υ 468. From Homer onwards the word is in general use, more often in the middle voice. The φ is shown by ἀφή, ἁφάω, ἀμφαφάω (Hom.), ἀφάσσω (Hdt.). The related Latin *ap-io* as well as the forms ἀπήτρια, ἠπητής put it beyond a doubt that the φ came from an older π.

2) βάπτω, in use from Homer onwards (ι 392), ἐβάφην from Plato onwards. The φ is also seen in βαφή, βαφεύς, βαφεῖον. That the aspirate is primitive is made probable by the relationship of the Skt. *gāh* dip oneself (Princ. ii. 75).

3) γλάπτω, only in Schol. B on B 88, and BE on δ 438, elsewhere γλάφω.

4) δρύπτω, first occurring at Hes. Scut. 243 κατὰ δ' ἐδρύπτοντο παρειάς, then in Eurip. Xenoph. etc. In Homer there is only ἀποδρύφοι (cp. p. 144) which counts for an opt. present, but may be an aorist, and δρύψα, ἀπέδρυφθεν, δρυψάμενος. ἀποδρύφοι and the nouns δρυφή, δρυφός, δρυφάδες given by Hesych. establish the φ of the stem.

242 5) ἐρέπτω, a by-form of ἐρέφω, found from Pindar (Pyth. 4, 240)—who also has ἐρέφω (ἐρέφοντα Isthm. 3, 72)—onwards. Homer knows only ἐρέψαι. The same alternation between the two forms is seen in the Attic comic poets: Cratinus fr. 96, 1 ἐρέπτομαι, but Aristoph. fr. 54 D. ἤρεφε. The φ occurs also in the Homeric ὑψ-ερεφ-ής, ὑψ-όροφ-ος, ὄροφος, ὀροφή. According to Fick³ ii. 214 the φ arose from a *p*.

6) θάπτω, common from Homer onwards. ἐτάφην, first in Herodotus, ταφήσομαι, τεθάφαται Hdt. vi. 103, τάφος, ταφή, and τάφρος prove that the root ended in φ.

7) θρύπτω. The present from Aeschylus onwards: διαθρυπτομένων Prom. 891, Γ 363 διατρυφέν, τρύφος, τρυφή etc. Though it is thus shown that the root ended in a φ, we must probably regard the φ as the successor of a *p*. Princ. i. 276.

8) κολάπτω. The present does not occur before Aristotle, though κεκολαμμένος and the like are older. The undeniable connexion with κόλαφος quoted from Epicharmus (κολαφίζειν NT.) entitles us to set down φ as the final consonant of the root.

9) κρύπτω common from Homer onwards (η 205). The φ of the stem is shown in the post-Homeric κρυφῇ, κρύφα, κρυφαῖος, κρύφος, κρύφιος and in the form κρυφιός which is established by La. at Soph. Aj. 1145. Later Greek shows numerous by-forms with a β: κρύβω, κρυβώ, ἐκρύβην, κρυβήσομαι. Cp. Lobeck on Aj. 1145, Princ. ii. 141. The case of καλύπτω is similar. Probably π was the primitive final letter of the root.

10) κύπτω, from Aristophanes onwards. The φ has the support of the Homeric κῦφός (β 16), κῦφος, and the Lat. *cumbere, cubare*. Still here too perhaps (Princ. ii. 142) the root originally ended in a *p*.

11) λίπτω long for, first occurring in Alexandrine poets as a present to the isolated λελιμμένος of Aesch. Sept. 380. The only traces of a φ are to be seen in the remarkable λιφερνοῦντες discussed at Stud. iii. 199 and in the analogous Skt. rt. *lubh*, Lat. *lubet* etc. Princ. i. 459.

12) ῥάπτω in all kinds of Greek from Homer onwards (π 422), ἐρράφην from Euripides's time. Cp. ῥαφή, ῥαφεύς, ῥαφίς. Bugge's conjecture, mentioned above on p. 161, that ῥάπτω exactly corresponds to

the Lat. *sarc-io*, and thus stands for **σραπ-jω*, with $\pi = c$, lacks corroboration.

C) Stems in β.

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1) *βλάπτω* (cp. *βλάβεται* p. 144) ϕ 294, α 195, ν 22, I 507, T 94, O 724, later in general use. The β appears in *ἐβλάβην* (as early as Ψ 461), *βλαβήσομαι* (Attic), in the noun-forms *βλάβη*, *βλαβερός*, *βλάβος* and in the derivative *βλαβύσσειν· βλάπτεσθαι* (Hesych.). Still the β is apparently not primitive. Cp. Princ. ii. 153 and Sophus Bugge Stud. iv. 326.

2) *καλύπτω* in use from Homer onwards (P 243, Ξ 114). The β perhaps only in *καλύβη* (Hdt., Thuc.) and its later derivatives *καλύβιον καλυβίτης*. It is probable that the final letter of the root was originally *p*. Cp. Princ. ii. 154. A few forms show a ϕ as well : *περικαλυφή* (Plato), *ἀκάλυφος* (Diog. Laert.). Cp. *κρύπτω*.

3) *νίπτω*, a by-form of *νίζω*. It is doubtful if it is Homeric, as in the only place where it stands in our texts, σ 179, *ἀπονίψασθαι* is proved by Apollonius Lexicon 23, 15 to be the old reading, and not *ἀπονίπτεσθαι* which most of the M.SS. have (Nauck Mélanges iv. 31). *νίπτομαι* Hippocr. Strabo. *χερνίπτου* Aristoph. Pax 961 (Homeric *χερνίψαντο*). That the stem had a β is shown by *χέρνιψ* (acc. *χέρνιβα*), and that the β came from a *g* by the Skt. *nig* (Princ. i. 395). In the Septuagint we find *νιφήσομαι*.

D) Stems with an Undeterminable Labial.

1) *γνάμπτω* poetical from Homer onwards. Cp. *κάμπτω*.

2) *δάπτω* the same, probably an expansion of the rt. *δα* (*δαίω*) by means of π. Cp. *δαπάνη*.

3) *δαρδάπτω* the same, from **δαρ-δάρπ-τω* (cp. *δρέπω*) with broken reduplication, as has been shown by Fritzsche Stud. vi. 297.

4) *δύπτω*, a late by-form of *δύω*, probably expanded by π, the oldest authority for which seems to be Antimachus (Schol. Apollon. Rhod. i. 1008).

5) *ἐρέπτομαι*, esse, B 776, E 196, ι 97 only *ἐρεπτόμενοι, ἐρεπτομένους*, cp. Aristoph. Equ. 1295. The active *ὑπέρεπτε* occurs at Φ 271, *κονίην δ' ὑπέρεπτε ποδοῖιν*. Perhaps *ἐρέπτω* is related to *rap-io*, *ἅρπαξ*, *ἁρπάζω*.

6) *ἴαπτω*. From the present stem Homer only has *κατὰ χρόα καλὸν ἰάπτῃς* δ 749 (cp. β 376). Aesch. Sept. 544 *ἰάπτεσθαι*, Soph. Aj. 244 501 *λόγοις ἰάπτων*, and in late poets. *ἰα-π* is apparently expanded from *ἰα* = Skt. *já* go, in a causative sense by the determinative *p* just as the Lat. *ja-c* is by *k*.

7) *κορύπτω* in late poets. Theocritus, besides the aor. (*μή τυ κορύψῃ* 3, 5), has the noun *κορυπτίλος*, and Hesych. has *κορυπτύλης· κρατιστής*, and *ἐνοιάδες·* (?) *αἶγες, αἳ μὴ κορύπτουσιν*. Connexion with *κορυφή* is probable, especially as *κορυπτιᾶν* means to carry the head high.

8) *λάπτω*. The present-stem is not found before Aristotle. The perf. *λέλαφα* in Aristophanes. *λαφύσσω* is evidently related, though possibly the root is *lap*, which has softened its *p* in the Latin *lambo*. Princ. i. 453.

9) *σκηρίπτομαι. εἴ ποθί τοι ῥόπαλον τετμημένον ἔστι σκηρίπτεσθ'* ρ 196, *σκηριπτόμενος* λ 595. The active in Apoll. Rhod., origin obscure.

10) χρεμπτομαι, clear the throat, from Eurip. onwards. Clearly an expansion of χρεμ (χρεμίζω, χρεμετίζω Princ. i. 250), so that the root probably had a π.

11) χρίμπτω. ἐγχρίμπτοντο P 413. Then in the tragedians and late poets. ἐπιχρίμπτει Bacchyl. 36 Be.[3] The rt. χριμ-π : χραν (χραίνω) :: χρεμ-π : χρεμ.

II. GUTTURAL STEMS.

1) πέκτω, a rare present-form of the rt. πεκ, has already been discussed on p. 162. From the same root are formed πέκω (only in the grammarians, e.g. Herodian i. 435, 21), πείκω (σ 316, Hesiod Opp. 775), and πεκτέω (Aristoph.). Cp. πόκο-ς, ποκάς, ποκίζω.

2) τίκτω (δ 86, τ 113), common to all Greek. Rt. τεκ, whence ἔτεκον, τεκοῦμαι, τέτοκα, τέκος, τέκνον, τοκεύς, τόκος. The explanation given of τίκτω by Ahrens and others (Kühner Ausf. Gr. i. 629), i.e. that it is an originally reduplicated form and stands for an earlier *τι τ(ε)κω has no analogy to support it. Moreover the number of thematic present-stems that are reduplicated is too small to make this conjecture probable. On the weakening of ε to ι see Princ. ii. 378 ff.

3) φάρκτεσθαι explained by Photius by φράττεσθαι, also φάρκτου· φυλακὴν σκεύαζε Hesych, so that it must be a by-form of φράσσω, φάργνυμι, and correspond to the Latin *farcio*.

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III. VOWEL STEMS.

1) ἀνύτω an Attic present-form, first in Aesch. Ag. 1123 ξυνανύτει, for the Homeric and Herodotean ἀνύω. Cp. ἤνυτο p. 122, where the form with the rough breathing was also noticed.

2) ἀρύτω, an Attic though not frequently attested by-form of ἀρύω, Plat. Phaedr. 253 ἀρύτωσιν, Pherecr. fr. 124 ἀρύτεσθαι. ἀρύσσονται Hdt. vi. 119 as a present stands alone, and L. Dindorf conjectures ἀφύσσονται instead. It origin is obscure. It would be possible to start from the rt. *ar* obtain, win, which appears in ἄρ-νυ-ται.

If in conclusion we review the whole extent of this present-formation, we shall find that the class contains 48 labial, only 3 guttural, and 2 vowel-stems, in all, that is, 53. In very many cases, especially in that of δρέπτω, ἐνίπτω (no. 4), πέπτω, ἐρέπτω, βλάπτω, ῥίπτω, πέκτω, ἀνύτω, ἀρύτω this present-formation confronts an older one of another kind. In not a few cases the forms of this class could only be found in late Greek. The number of verbs of this class therefore, which were actually in general use, is not exceedingly large.

CHAPTER IX.

THE NASAL CLASS.

NEXT to the present-stems which have been strengthened by a *τ* it will be best to place the widely ramifying formations in which the element of expansion is a nasal, and for this reason, that the syllables which contain the nasal are apparently of precisely similar origin with the syllable in the present-stem containing a *τ*. Here too we have to deal with a stem-formation not unlike the formation of nominal stems, or more correctly 246
speaking, of exactly the same character, and in the first instance proceeding likewise by means of a simple suffix. We have already met with expansion by means of a nasal syllable at p. 109 ff. in dealing with the present-stems of the non-thematic verbs, and it is clear that there is the closest relationship between the formation to be discussed here and those discussed above. To this point I have called attention on various occasions, and especially on p. 116.

All nasalised present-stems which have a thematic vowel can be distinctly proved to have arisen from corresponding present-stems which had none, by the action of the tendency to uniformity spoken of on p. 148, which permeated the European languages in particular, and which led on all sides to a gradual retrenchment of the older, non-thematic conjugation. This gradually effected change proceeded in one of two ways. Either the thematic vowel took the place of the final vowel of the stem in *να*, *νυ*, or it was affixed to this stem as it was. For instance in the 1st plur.—

-νᾰ-μεν might become either *-νο-μεν*
or *-να-ο-μεν*,
-νῠ-μεν might become either *-νο-μεν*
or *-νυ-ο-μεν*.

The former of these two changes is somewhat surprising in the case of present-stems in *νυ*, because the phonetic change of *υ* to *ο* and still more to *ε* as would have to be the case e.g. in the 2nd plur. *-νε-τε* by the side of *-νυ-τε*, is not natural to Greek. We shall have to enquire therefore whether the facts of the case may not admit of a different explanation. In the case of the stems in *α* however both explanations are equally feasible.

The oriental branches of the Indo-Germanic stock as a rule know nothing of formations of this class. There are however single instances of a tendency in this direction to be seen in connexion with the forms given above on p. 116. For instance the impf. *a-gṛh-na-m* which according to Delbrück first occurs in Epic Sanskrit, bears exactly the same relation to the old prevailing formation shown by *a-gṛh-nā-m*, that the Gk. *ἔ-καμ-ο-ν* does to such a form as *ἐ-σκἰδ-νη-ν*. Spiegel in his grammar

247 of the Old Bactrian language p. 243 notices similar processes in this quarter. The Zd. imperative *perena* (fill) e.g. bears to the Skt. *pṛ-ṇī-dhi* a relation quite similar to that of τέμ-νε to πίλ-να-θι. In Sanskrit itself this verb has developed forms like *pṛṇá-ti*, *pṛṇa-tē*, and *mṛṇa-ti* he maims, for which in that case a root *mṛṇ* is given, as compared with *mṛ-ṇā-ti* is quite analogous. The 3rd pl. *pṛṇa-nti*, which might belong to either of the two formations, corresponds to the Old-Latin *(ex)-plenu-nt* =*explent*, and is only distinguished from the Doric πιμ-πλάνο-ντι, which the Homeric πιμπλάνεται warrants us in supposing, by the absence of the reduplication. Another link between the classes of verbs in use in Sanskrit and those in question here is the connexion that exists between the 5th or 9th class and the nasalising verbs of the 6th, as seen e.g. in *tṛ-m-p-ā-mi* (Rv.) by the side of *trp-nō-mi* (τέρπω), *ma-n-th-ā-mi* (shake) by the side of *math-nā-mi*, *çṛ-n-th-a-ti* by the side of *çrath-nā-mi* (plait). The last-named forms come nearest to Latin forms like *ru-m-p-o*, *fi-n-d-o*, *pi-n-g-o*.—Much light is thrown on the subject of the mutual interchange of the various nasal present-formations by the Old-Persian *a-di-na-m* I took away (Spiegel, Altpers. 203), by the side of the Zd. *zi-nâ-t* (conj.) and the Skt. *hi-nō-mi* I throw, with which the Iranian words have no doubt rightly been connected.

We thus see that there is by no means an absence of precedents for the present-formation which is now under discussion, and which extends more or less to all the European languages. We will in the first instance adduce only such Greek presents of the kind as have connexions of a similar stem-formation in another language:

δάκ-νω	Skt. *daṃçā-mi* (no authority given, but there are other forms with a nasal in the Pet. Dict.).
τί-νω	„ *ki-nō-mi* (Princ. ii. 93).
φθί-νω	„ *kshi-ṇō-mi* (Princ. ii. 370).
κλί-νω	„ *çri-nā-mi*, Zd. *ni-çiri-nao-mi* (Joh. Schmidt Voc. ii. 251).
κρί-νω	cp. Lat. *cer-no*.
ἀλίνω (ἀλείφω Hesych.)	„ *li-no* (Lob. Rhemat. 123, 238).
ἱστά-νω (Polyb.)	Ch.-Sl. *sta-nạ*.
(στα-νύω C. I. 2556).	
χαίνω (rt. χα, χαν)	Ch.-Sl. *zi-nạ* (cp. O. H. G. *gi-n-ê-m*).

248 A remarkable agreement between Italian and Teutonic is to be seen in the Umbrian imperat. *pers-ni-mu* pray (rt. *pers* for *prek*, cp. Lat. *prec-ā-ri*), as compared with the Gothic *fraith-na*, O. N. *frëg-na*, A. S. *frigne* and *fringe* (Schade Wtb. 143), in which the metathesis strongly suggests *scindo* as compared with the Gk. σκίδ-η-μι. The Gothic presents in *-na* are distinguished by a special intransitive and passive meaning, in the former of which they agree with the similar presents in Church-Slavonic and Lithuanian, though in Lithuanian (Schleicher, Comp.[3] 784) the nasal holds a different position. In Greek and Latin no such limitation of the meaning is apparent.

Now that we have taken a summary view of nasalised thematic presents in general, it becomes our duty to classify the Greek verbs belonging to this class, and to enquire into the origin of each kind. We must divide them into five main classes, each with various sub-classes. We shall here discuss each class as a whole, preparatory to the subsequent

arrangement and verification of the separate verbs of which each class is composed.

I. PRESENTS IN *-νω, -νο-μαι.*

This class comprises only verbs in which the root has received no further addition than this, e.g. *πί-νω, δάκ-νω*. They are to be compared to Latin verbs like *li-no, si-no*, O. Lat. *da-nunt*, and imp. *da-ne* (?) (Neue, Formenl. ii.[2] 412 f.), *-i-nunt* in *ob-i-nunt, red-inu-nt*, which exactly agrees with the Lith. *einú* I go, and, as Gust. Meyer (Stud. v. 337) conjectures, with the Skt. *invā-mi*, I press in, make myself master of. These forms fall into two divisions, according to their origin. Some come, we may conjecture, from an older *-νᾰ-μι -ι̯ᾰ-μαι*. This origin is clearest in the case of *δάμ-νει· δαμάζει, ἔδαμον· ἐδάμαζον* (Hesych.), and in that of *ἔπιτνον* Hes. Scut. 291=**ἔπιτναν* or *ἐπίτνασαν*. If the 1st pl. **δάμ-νο-μεν* had survived it would have borne exactly the same relation to *δάμ-να-μεν* as that of the Lat. *ster-ni-mus* to the pre-supposable **star-na-mas* (Skt. *str̥-nī-mas*). Fick[3] i. 57 connects *κάμνω* with the Skt. *ἅπαξ λεγόμενον çam-nā-mi*, and Delbrück (Verb. 216) justifies the comparison.—A second kind are clearly related to verbs in *-νυ-μι*, which, as we have seen on p. 109, have numerous by-forms in *-νυ-ω*. In this way we have side by side

τί-νυ-ται (p. 113)	and *τίνω*.	
φθι-νύ-θω (cp. Skt. *kshi-ṇō-mi*)	„ *φθίνω*.	
πτάρ-νυ-μαι (p. 112)	„ *πτάρνισθε* (Aristot. Probl. x. 18).	249
ἐ-σβέννυ-εν	„ *ἔζινεν* (Hesych. cp. *ἀποξίννυται· ἀποσβέννυται*).	
Skt. *dhū-nō-mi*	„ *θύνω* (Princ. i. 321).	

The clearest trace of the old *νν* is that contained by *ἐλαύνω*, i.e. *ἐλα-νυ-ω* (cp. the Sanskrit forms in *-nv-a* for *nu* given on p. 109), where it is clear that the *υ* of the *αυ* was anticipatory of the *υ* in the next syllable, from which it afterwards quite disappeared (Princ. ii. 338). Our attention must further be directed, as it has often been already (cp. especially p. 121), to *ἀνύω* (*ἀνύω*) on account of the forms *᾽ἄνεται* and *᾽ἄι̯οτο*, which are as early as Homer. In this case we have the series, which we only suppose in the case of other stems, complete :

ἄνυ-μαι *ἀνύ-ω* *᾽ἄνω* *᾽ἄνω*.

As to the etymology of the verb, we may leave it an open question whether or not the *ν* was part of the root, in which case we should have to deal not with a *νυ* used as a present-expansion, but with *υ* used to expand the stem, a possibility which gained a certain amount of probability from the comparison of the Skt. rt. *san* (*san-ō-mi*) of the 5th class.—As an instance of the phonetic process assumed by us it holds good either way, and entitles us, even when the series is not as complete as that given for *ἄνυμαι*, to fill up the gaps in it on the analogy of that series, and in particular (cp. p. 113) in these two cases—

τῐ́-νυ-νται	*τῐ̆-νύ-μεναι* (Eurip.)	**τι-νύ-ω*[1]	**τῐ́-νω τῐ́νω*
**φθῐ́-νυ-μι*	**φθῐ̆-νύ-ω*	*φθῐ́-νω*	*φθῐ́-νω*.

[1] I write these forms with the asterisk, although I am quite aware that in Plutarch and Diodorus forms like *τινύοντες* or *τιννύοντες* are of isolated occurrence. But from what L. D. in *Steph. Thes.* s. v. *τιννύω* says, I doubt if the

Importance here attaches to this fact in the history of the forms: that the ι before the -νυ was sometimes short, while before -νω Homer has it always long, and it does not begin to be short till Pindar's time. We may conjecture that from the time at which the digamma was in use in all Greek dialects there arose beside *τινύω a form *τινϝω, from which by assimilation there next came *τιννω, and then, by compensatory lengthening, τίνω, until at last all trace of the spirant was swept away
250 with the shortening of the vowel. Precisely the same phonetic series may be actually seen in the Dor. ξένϝος (Corcyr. inscr.), Aeol. ξέννος, Ion. ξεῖνος, Att. ξένος. The assumed stem *φθινυ gets special support from the Homeric φθῖνυ-θω, φθί-νυ-θο-ν. No Aeolic present-forms for the stems φθι and τι have been preserved, but ὀρίννω and σίννονται are well attested (Ahrens Aeol. 53), and these have clearly come from *ὀριϝω, *σιϝοιται. This assumption is confirmed by the relation of ὀρίνω to ὄρνυμι. It will be enough to point out how natural such a series as the following would be:—

ὄρ-νυ-μι *ὀρ-νύω *ὀρ-ι-νύω *ὀρινϝω ὀρίννω ὀρίνω.[2]

The last form but one would stand on the same level phonetically with the Gothic *rinna*, though the meaning of the latter is intransitive. On the other hand, we must abide by the old view of κρίνω, κλίνω (Aeol. κρίννω, κλίννω), i.e. that they have arisen from κριϳω, κλιϳω, because it is only in this way that we can explain the futures κρῐνέω, κλῐνέω, which point as clearly to a verbal stem κρῐν, κλῐν (beside κρι κλι) as φανῶ does to φαν. If, then, we attribute the gradually disappearing length of the vowel before ν in τίνω, φθίνω, to the after-effects of the old syllable νυ[3], it seems a most natural thing to conjecture that φθά-νω, whose quantity underwent a similar change, arose in the same way. Finally, it is possible that we have a still less obvious trace of the present-formation here in question preserved in two presents which are just like each other, βούλομαι and the Homeric οὐλόμενος. For βούλομαι we should be entitled by the Aeol. βολλα=βουλή (Ahrens, 59), the Cret. βώλομαι (Hey de dial. Cret. p. 25), and the Homeric ἐβόλοντο α, 234, βόλεται Λ
251 319, to assume an Aeolic βόλλομαι. This form however is actually to be found in Theocr. 28, 15 (ἐβολλόμαν). βόλλομαι, it is extremely probable, arose by progressive assimilation from *βολ-νο-μαι, as did ὄλλυ-μι from *ὀλ-νυ-μι. Now the νο of *βολ-νο-μαι would bear to the nō of the Skt. *vṛ-ṇō-mi* for **var-ṇō-mi* (I choose) exactly the relation of that of τί-νο-μαι to the nō of the Skt. *ki-nō-mi* (cp. Brugman, Stud. iv.

reading in these cases is correct. It is possible too anyway that it was coined afresh in late times, and that it was only a chance that it resembled the old form.

[2] Of the anaptyxis of an ι after a liquid we should have an excellent example in ἐλ-ῑ-νύ-ω, if we could be more clear about the etymon of the verb, whose meaning 'rest, loiter,' does not come so very near to that of the root ϝελ turn, revolve. It is possible on the other hand that the ι is of the same kind as the *i* in the Lat. *orior* (Gk. ὀρέοντο), i.e. a present-expansion.

[3] Gust. Meyer n. Pr. 45 regards the long vowel as an intensification of the same kind as that seen in τείω τίω (cp. above, p. 113). But the contrast between φθῐνύθειν and φθίνειν in Homer and the existence of ἄνω by the side of ἀνύω seem to speak for my view. The same scholar does not like the derivation of -νω from -νυω, and will only recognise -nā-mi as a forerunner of -νω. But there is often not a trace to be seen of such a formation.

121). With *βούλομαι*, however, I have at Stud. v. 218 compared the Homeric participle *οὐλόμενος*, which as clearly belongs to the rt. *ὀλ* (*ὄλλυμι*) as it is distinguished by its active meaning from middle aorist-forms like *ὤλετο* and *ὀλέσθαι*. I conjecture, then, that by the side of **ὀλ-νυ-μι* there existed a middle **ὀλ-νυο-μαι*, which early became **ὄλ-νο-μαι*, **ὄλ-λο-μαι*, and was finally made into **οὔλομαι* by compensatory lengthening, and, no longer thought of in connexion with *ὄλλυμι*, only survived in the restricted *οὐλόμενος*. In an aorist participle the *ον* would be inexplicable, while, on the other hand, the shortened *ὀλόμενος* (Eurip.) is completely explained by the analogy of the Homeric *βόλοντο*. To these may be added *εἴλλω*, which we shall have to discuss on p. 176. For the remaining present-stems of this division there are no criteria to show whether the syllable *νο* (*νε*) came from *na* or by way of an intermediate *νυο* (*νυε*) from *νυ*, or, in other words, whether they stand in direct relation to the 9th or to the 5th class of Sanskrit verbs.

II. PRESENTS IN *-α-νω, α-νο-μαι.*

The traces in Sanskrit of a similar formation to that of the very numerous Greek verbs in *-ανω* have been already noticed on p. 116. The Vedic *ish-ana-t* there mentioned is in formation not at all distinguished from Greek forms such as e.g. the Dor. *ηὔξ-ανε*, nor the middle impf. *ish-ana-nta* from such forms as *ἠχθ-άνο-ντο*, while the more frequent forms of the 2nd sing. imperat. act. in *-āna*, e.g. *grh-āna* catch hold of, *aç-āna* eat, are to be compared with Greek forms like *ἴκ-ανε*. Of a precisely similar character are the Armenian presents in *-anem* given by Hübschmann Ztschr. xxiii. 406, e g. *lkh-anem* = *λιμπ-άνω*.—Latin presents a number of parallels which are adduced by Neue Formenlehre ii.[2] 412 f. and Corssen i.[2] 420 : *sol-ino* consulo (Fest. p. 351), while *sol-inunt*, according to Fest. 162, occurred for *solent*, and at Fest. p. 352 *in-ser-īn-untur* is given from Livius, Odyssia Latina. It is at first sight 252
somewhat surprising that the *i* in the last form should be long (Ritschl Monum. epigr. tria, p. 18). But it is not impossible that the long vowel ought to be explained as originating in **ser-io* a possible by-form of *ser-o* formed like *fer-io* (*ferinunt* Fest. p. 162). Such a present would exactly correspond in formation to the Gk. *εἴρω* for **σερ-jω*. Thereupon the vowel of the *i*-class would have united with the initial letter of the nasal suffix *-ĭno* (for *-ăno*) to form the long *i*, somewhat as in *ἰζάνω*, *φυζάνω* which are for **ἐδ-j-ανω* **φυγ-j-ανω*, and precisely as the *ζ* of the rare *φυζάνω* contains the only trace of a Greek present-formation in *i* from *φυγ*, so would the long *i* in *inserinuntur* have preserved the only relic of a Latin present formed after the *i*-class from the rt. *ser*. In the formation of the word then there is no compelling cause to follow Ritschl in altering Festus's *inserinuntur* to *interserīnuntur*. If *solino* had a short *i*—as to which we have no guide—*sol-ino* is to *-solo* (*consulo*) as *αὐξ-άνω* to *αὔξω*, and the short *i* in the verb to the *ă* of the Greek as that in *patĭna* to the *ă* in *πατάνη*.—In Lithuanian there are numerous verbs in *-in-ti* in the inf. with a causative meaning, such as *aũg-in-ti* make to grow (*áug-ti* grow), *mar-ìn-ti* kill (*mir-ti* die). Cp. Schleicher Lith. Gr. 164 f. The connexion of these with the Greek forms here under discussion can hardly be denied.

To account for the origin of such formations is harder than to collect

parallel forms from other languages. What is the relation of *-ana* to the shorter *-na*? Benfey (Kurze Sktgr. p. 94) says that the *-na* is 'split up' by the addition of an *a*. I doubt if this can be justified by analogies, especially in Sanskrit, and we should have just as much right to maintain on the other hand that *-ana* was the fuller form from which the shorter *-na* arose. The only thing we can be sure of is that both *-ana* and *-na* are to be regarded as originally constructive (*wortbildende*) suffixes. The same view is expressed by Gust. Meyer n. Pr. 57 ff.

The Greek presents in *-ανω*, of which Lobeck on Buttman Ausf. Gr. ii. 64 ff. gives the most complete list, fall into two subdivisions. We must clearly distinguish those in which the stem-syllable is itself nasalised as
253 in *ἀ-ν-δ-άνω* from those in which *-ανω* is added to an unchanged stem, as in *ἁμαρτ-άνω*. To the first subdivision belong a lot of very old and much-used verbs, in the case of which our first business will be to explain the nasal in the root-syllable. The related languages show no complete analogy to this, though for a number of the verbs which belong here they have forms with a nasal element inserted only and not affixed as well, and present-formations which are similar in other respects. Thus we may compare

θιγγάνω	with	the	Lat. *fingo* Princ. i. 223.
λαμβάνω	„	„	Skt. *a-lambha-nta* Princ. ii. 145.
λιμπάνω	„	„	Lat. *linquo* and the Skt. *riṇak-mi* plur. *riṇk-mas* Princ. ii. 60
χανδάνω	„	„	„ (*pre*)-*hendo* Princ. i. 242.
πυνθάνομαι	„	„	Lith. *bundù* (wake) Princ. i 325.
φυγγάνω	„	„	Ch.-Sl. *otŭ-bĕg̑-nǫ-ti* (aufugere) Princ. i. 232.
τυγχάνει	„	„	Lith. *tìnka-s* it happens Princ. i. 271.

The consideration of all these phenomena as a whole must, I think, lead to the conclusion that the nasal syllable at the end was antecedent in time to the nasal which was inserted. I therefore conjectured even in my Tempora und Modi p. 65 f. that 'the nasal of the stem-syllable was a reflexion of the nasal termination,' and more distinctly in my 'Erlauterungen'[3] 123 (Eng. trans. p. 143) 'this nasal is apparently due to the anticipation (*Vorklingen*) of the nasal contained in the following syllable.' The same view is expressed by Benfey Kurze Sktgr. p. 83. He calls the phonetic process 'assimilation.' He is followed by Leo Meyer Goth. Sprache p. 208, and also—though from fresh points of view and with some points of difference—by Joh. Schmidt Vocal. i. p. 32. It being then extremely probable that the inserted nasal is due to the anticipation of the affixed nasal, the only room for doubt is whether, as Benfey and Leo Meyer think, the series of forms was

*λαβ-νω *λα-μ-β-νω λα-μ-βά-νω,

or as Joh. Schmidt prefers

*λαβ-νω *λαβ-άνω λα-μ-β-άνω.

On the side of the former view is the fact that in this way the same principle will explain those forms which have an inserted nasal only, such as the Skt. *pra-la-m-bh-a-ntē*, passive aorist *a-lambh-i* by the side
254 of *a-lābh-i*, causative *lambh-a-jā-mi*, aor. *a-la-lambha-m*, the Lat. *fingo*, *linquo* and the completely isolated Greek *σφίγγω* in which the nasal has become firmly attached to the verb-stem. The only point, that is, in which

they are distinguished from the assumed primary forms is that they have lost the nasal which came before the thematic vowel: *la-m-bh-(n)a-ntē*. It seems to me more probable then that the inserted nasal arose in this way than that it is due to metathesis. On the other hand there are no distinct indications that the *a*-sound which precedes the nasal termination never appeared until *after* the insertion of the nasal. I think therefore that it is very possible that in a pre-Greek period form like **la-m-bh-nā-mi* and **la-m-bh-anā-mi* existed side by side. We are hardly warranted in assuming, at all events for Greek, such a form as **λαμβ-νω*. Joh. Schmidt aptly compares the ordinary Greek *τύ-μ-π-ανο-ν* by the side of *τύπ-ανο-ν* (hymn. hom. xiv. 3 *κροτάλων τυπάνων τ' ἰαχή*), while the other proofs he advances for the anticipatory epenthesis of the nasal—such as *σπλά-γ-χ-νο-ν*—with which Sophus Bugge (Stud. iv. 430) aptly compares the Goth. *lunga* (stem *lungan*)—by the side of *σπλήν* and the Lith. *blužnis*, and the parallels from other languages, are more in harmony with the view which he opposes.[4]

All the roots which have a short vowel are subject to this affection with the single exception of *ἱκάνω* for which we should expect **ἰγ-κάνω*. This verb is however so far peculiar that its *ᾰ* is long throughout. It is just possible that this points to an origin from *ἱκαν-ϝω*. The long syllable would thus be due to the same cause as in *τίνω*, *φθίνω*, *φθάνω* according to the view expressed above on p. 172. That the nature of the first syllable is in some way connected with the quantity of the second is shown by the variation between the Homeric *κῑχάνω* and the Attic and poetic *κιγχάνω* as written by Dindorf on the ground of M.SS. indications at Aesch. Choeph. 620, and subsequently in some places in Sophocles (O.C. 1450) and Euripides (Hel. 597). If Fick[3] i. 55 is right in his comparison of this verb with the 255
Lith. *kánkù* inf. *kàk-ti* obtain and the Skt. *çak-nō-mi* to be able, closely connected with which is *çak* imperat. *çag-dhi* to which among other meanings the Pet. Dict. assigns that of 'make to share in,' this would be another instance in which the nasal expansion was not confined to Greek.

The second subdivision of the verbs in *-ανω* consists of those which content themselves with the simple addition of this syllable. In all of them the stem syllable is long either by nature or position: *κευθ-άνω*, *ληθ-άνω*, *αὐξ-άνω*, *ἀλφ-άνω*. These verbs are not nearly so numerous or primitive as the last. Most of them have by-forms of equal or greater currency: *κεύθω*, *λήθω λανθάνω*, *αὔξω*. It is not uncommon to find the present-expansion *-ανω* added to present stems which have been expanded once already—e.g. to present stems of the lengthening class in *θηγάνω*, *κενθάνω*, *ληθάνω*, of the *i*-class in *ἰζ-άνω*, *ἀζ-άνω*, *φυζ-άνω*, of the inchoative class in *ἀλυσκ-άνω*, *ὀφλισκ-άνω*, *εἰριγισκ-άνω*, to formations with a *θ* in *δερ-θ-άνω*, *ἐχ-θ-άνο-μαι*, *αἰ-σ-θ-άνο-μαι*, *ὀλισ-θ-άνω*, to reduplicated stems in the late *ἱστά-νω* [here *-νω* not *-ανω* is added], *ἰσχ-άνω*, to formations with a *τ* in *ἁμαρτ-άνω*, *βλαστ-άνω*, and to a stem already expanded by a *σ* in *αὐξ-άνω*. It is remarkable that analogies to what we may call tertiary formations like these are to be found in the

[4] Gustav Meyer's view (p. 90), that in *θιγγάνω* a second nasal syllable was grafted upon the first: **θιγ-νω *θιγγω* = (*fingo*), *θιγγ-άνω*, I cannot help thinking too elaborate.

related languages. The conjunction of the nasal class with the inchoative is to be seen, only in the reverse order to that of the Greek, in the Lat. *fru-n-isco-r* (Lucilius ed. Luc. Müller xviii. 2) and in *nanciscor* which apparently arose by metathesis from **nac-ni-sco-r* (Joh. Schmidt Ztschr. xxiii. 270). Greek formations like *δαρ-θ-άνω* exactly correspond to the Lithuanian in *-d-inu*, of which Schleicher gives a list in his Lit. Gr. p. 165, e.g. *lýd-din-ti* to make it rain, *pi̯d-din-ti* to get plaited. The causative meaning which attaches itself to these forms as well as to those in *-inti* is no hindrance to our comparison. The nature of these verbs renders it probable that the second subdivision of verbs in *-ανω* is of comparatively later origin than the first, and this conclusion will be confirmed by the more minute investigation of the several forms given below.

256 III. PRESENTS IN *-ναω, -ναομαι,* AND *-αναω, -αναομαι.*

The verbs in *-νη-μι* treated of on p. 116 ff. have in many cases by-forms in *-να-ω*: e.g. *δαμ-νά-ω, κιρ-νά-ω, πιτ-νά-ω.* Apparently the relation of *-να-ω* to *-νη-μι* is the same as that of *-νυ-ω* to *-νυ-μι.* Schleicher Comp.[3] p. 765 assumes that a *j* has fallen out between the *a* and the thematic vowel, just as in the ordinary verbs in *-αω* e.g. *δαμά-ω.* In support of this we can certainly mention *δακνάζομαι* (Aesch. Pers. 571), which is unmistakably a derivative from *δάκνω* made by means of *-αζω*= *ajāmi.* And it looks as if the Sanskrit forms in *-nā-jā-mi* discussed by Benfey Or. u. Occ. i. 427, iii. 217, like *paṇājāmi*=*περνάω* were also in its favour. But since we not only have no ground for assuming in the verbs in *-νυω* just mentioned the loss of a *j*, or in other words for assuming that the mark of the *i*-class was added to that of the nasal-class, since moreover we have in other instances repeatedly seen the simple thematic vowel added to the stem of verbs in *-μι*, e.g. in forms like *ἴ-ο-ιμι, ἐών, ἱστᾷ* (Hdt.), *πιμπλέω* (Hes. Theog. 880), I do not know whether we ought not to prefer the simple to the more elaborate explanations.

The case, however, is somewhat otherwise with the verbs in *-αναω, -αναομαι.* These verbs have no such prototype as is provided for verbs in *-ναω* by those in *-νημι.* What are we to say then to the Homeric *δεικανόωντο, ἰσχανόωντο* (cp. *ἰσχανέτην*)? For *δεικανάω* we have in *δείκνυμι* at least something like a related form, and can conjecture that there is between the former and the latter a relation similar to that between *ὀριγνάομαι* (p. 111) and *ὀρέγνυμι.* A transition to the analogy of the *a*-conjugation is here unmistakable. It might perhaps be conjectured that these verbs are properly denominatives, and for *κυρκανάω* a noun *κυρκάνη* is actually given. But the linguistic sense certainly regarded them as little different from verbs in *-ανω*, and besides they only occur in the present-stem. In Zend (Schleicher Comp.[3] 761) the verbs in *-nao-mi* (=Skt. *nōmi*) have by-forms in *-navā-mi*, e.g. 2nd sing. imperat. *kerenava* (make). Might we venture to compare the enigmatical Greek
257 formations with these? *ὀριγνάομαι* would then stand for **ὀριγναϝο-μαι* with the old intensifying *a* retained. The sounds in the two cases agree, but the comparison is doubtful all the same, especially as *a* is extremely rare in such a position.

It is with greater confidence that I compare the Latin verbs in

-inare : car-ĭna-re (Enn.), which is explained by *jurgare*, *obtrectare* and referred to a root which is perhaps connected with *κείρω*, *coquinare* (Plaut.), a by-form of *coquere*. *de-stĭ-nā-re* occupies a position by itself, inasmuch as the *i* has evidently been weakened from a radical *a*. It bears, then, a similar relation to *coqu-ina-re* that *παμ-φα-νάω*, assuming that this form has come from the rt. *φα* not *φα-ν*, does to *δεικ-ανάω*, and has its counterpart in the Cretan *στα-νύ-ω* as also in the form *ἰ-στάνω* first found in Polybius.

IV. PRESENTS IN *-νεω*, *-νεομαι*.

These not very numerous formations are evidently closely connected with those just discussed. As to the origin of the vowel *ε* we shall hardly avoid the uncertainty which arose in the last division about the *α*. The syllable *νε* along with the thematic vowel often attaches itself to the same roots which also take other nasal strengthenings, so

ἰκ-νέο-μαι	by the side of	*ἰκάνω*	
δυ-νέω (Hdt. ?)	„	„	*δύνω*
θυ-νέω (Hes. Scut.)	„	„	*θύνω*
(ὑπ)-ισχ-νέο-μαι	„	„	*ἰσχάνω, ἰσχανάω.*

In *κινέω* the syllable *νε* has passed into the whole verb-stem, but the relation to *κίνν-μαι* is unmistakable.

The verb *ἀγῑνέω*, which occurs in Homer by the side of *ἀγινέμεναι*, *ἀγίνεσκον*, stands by itself. The *ι* is evidently the same as that in *ὀρῑνω*, and here too we get a form without this vowel. Similar to the relation of *ὄρ-νυ-μι* to *ὀρῑνω* is that of the Cretan *ἀγνέω* (Hesych.) to *ἀγῑνέω*.

V. PRESENTS IN *-αινω*, *-αινομαι*.

These presents are due to a union of the marks of the nasal class and the *j*-class. We can hardly be surprised at such an accumulation of 258
expansives after having already encountered several instances of the union of the marks of the nasal and inchoative classes. The verbs in *αινω*, if we omit those which, like *ἀγριαίνω*, *αὐαίνω*, *κερδαίνω*, *ὑγιαίνω*, come from Greek noun-stems in common use, fall into two divisions according as *-ν-ιω* or *-αν-ιω* is joined to the root. This variation is evidently due to the same reason as that between *-νω* and *-ανω*. We may conjecture, therefore, that the first division is closely connected with the verbs in *-νω*, the second with those in *-ανω*. *βαίνω* is the only instance of the first division, while the second is represented by *ὑφ-αίνω*, *ἁλιτ-αίνω*. In *καγκαίνει· θάλπει, ξηραίνει* (Hesych.) i.e. *καγ-κα(ϝ)-νι-ει*, we find the same inserted nasal as in the likewise reduplicated *πιμπλά-νω*. A shorter by-form occurs in *καγκομένης* (*ξηρᾶς τῷ φόβῳ* Hesych.). *τετρεμ-αίνω* is likewise reduplicated, and it is noticeable about the second part of the word that *αν-ĵω* has been added. This formation too has its Indian prototypes. In the Vedas there occurs as a causative present of the rt. *dam* among others the *dam-an-já-ti* already mentioned on p. 117, a form which would exactly correspond to a quite possible Greek **δαμαινω*, and which Delbrück, who gives a collection of such presents from the Vedas at p. 207, regards as a denominative formation from *damana-m* taming. (Cp. G. Meyer n. Pr. 99.) Most of these presents

actually have nominal stems of that kind by their side. Still there are some that have no such stems, e.g. *rishan-já-ti* he is in fault, which stands by the side of the synonymous *résha-ti* just as, say, the Greek κροαίνω by the side of κρούω.

The verbs in -ανω and -αινω have this peculiarity in common, that in many instances they have, besides the shortest and the longest stem, a third, which is used for the formation of the compound tenses and even of the perfect:

μαθ	μανθανο	μαθε	(μαθήσομαι)
αἰσθ	αἰσθανο	αἰσθε	(αἰσθήσομαι)
ἀλιτ	ἀλιταινο	ἀλιτε	(ἀλιτήμενος)

259 and by-forms of the last kind are not unknown even in the formation of the present: e.g. the Homeric ὑφόωσι by the side of ὑφαίνειν.

The verbs which belong to this widely ramifying class are the following. They are arranged in the subdivisions given above.

I. PRESENTS IN -νω, -νο-μαι.

1) *ἀλίνω only given by grammarians and explained by ἀλείφω. We follow Lobeck Rhem. 123 in connecting it with the Lat. *li-no* (*lê-vi*, *lî-tu-s*). Connected are Hesychius's glosses ἀλεῖναι· τὸ ἐπαλεῖψαι τοίχῳ, ἀλῖναι· ἐπαλεῖψαι, ἀλίνειν (cod. ἀλινεῖν)· ἀλείφειν. ἀλίνουσιν given by Bekk. Anecd. 383 as Sophoclean hardly belongs here, since it is explained by λεπτύνουσιν, but rather to ἀλέω grind, and is probably to be regarded as a formation similar to ὀρίνω. It must be admitted therefore that this ἀλίνω=*lino* is not beyond suspicion as a present-form. The aorist ἀλῖναι shows that the ν extended here beyond the present-stem as in κοῖναι, κλῖναι etc.

2) ἄνω has been discussed on pp. 121 f. and 171, where the Homeric forms will be found. ἄνοις Aesch. fr. 156 Dind. with ἄ. ἄνειν Plato Crat. 415 a.

3) βερνώμεθα· κληρωσώμεθα Hesych. was given on p. 118. It is possible that it belongs here as well.

4) βύνω a rare by-form of the usual βυνέω in Hdt. διαβύνεται ii. 96.

5) δάκνω, the forms of the present-stem, which are afterwards in general use, are wanting in Homer. Cp. δαγκάνω. In Skt. there exist side by side the rts. *daç* and *dąç*. Cp. p. 170.

6) δάμνω (?) only in Hesych.: δάμνει (cod. ἐαμνεῖ) δαμάζει, cp. p. 171.

7) δίνω, Aeol. δίννω, elsewhere δινέω, Hes. Opp. 598 Δημητέρος ἱερὸν ἀκτὴν δινέμεν, ἀποδίνωντι tab. Heracl. i. 102, Meister Stud. iv. 433.

8) δύνω from Homer onwards (δύνοντες λ 579, δῦνε Ε 845, ἀπέδυνε χ 364, δῦνον Λ 268), but seldom in Attic prose.

260 9) ἐλαύνω ordinary Greek from Homer onwards (M 62), a shorter present-form ἔλων (?) Ω 696, εἰσελάω κ 83 and elsewhere in poets, rare in prose, tab. Heracl. i. 127 ἐπελάσθω. Cp. p. 148.

10) ἔ-ζινε-ν· ἐσβέννυεν Hesych. Cp. ζείνυμεν (cod. ζείνομεν)· σβέννυμεν.

11) θύνω. θῦνε (impf.), E 87, by the side of ὀλοιῇσι φρεσὶ θύει 342; also in Pindar and later poets. θυνέω Hes. Scut. 210.

12) *ἱστάνω*, a by-form of *ἵστημι*, known to occur from Polybius onwards.

13) *κάμνω*, from Homer onwards (*μ* 280, T 170, *κάμνε* E 797) in general use. Cp. p. 171.

14) **κέρχνω* is only quoted from Hippocr., *κέρχνει* (cod. *κερχνεῖ*)· *τραχύνει* Hesych. By-forms *κέρχω*, *κερχνόω*.

15) *κιχά-νω*. In Homer with short *ι* and long *α*: *κιχάνει* T 165, *κιχάνετε* Ψ 407, later the quantities are reversed; *κιγ-χά-νει* (above p. 175). Cp. *κίχημι* (p. 121).

16) *πιμ-πλά-νε-ται* only I 679; discussed on p. 170.

17) *πίνω*, Aeol. *πώνω*, ordinary Greek, by the side of the fut. *πίομαι*, aor. *ἔπιο-ν*, *πῖθι*. The related languages all know the rts. *πο*, *πι*, originally *pa*, but know of no nasal present-formation from this rt.

18) **πτάρνομαι*. The Aristotelian *πτάρνοισθε* (Probl. x. 18) was mentioned above on p. 171, *πτάρνυμαι* on p. 112.

19) **στάνει· στείνεται, συμβέβυσται*, Hesych. anyhow related to *στενός*, though the meaning makes it doubtful whether it is also related to the Cretan *στανύω* (*statuo*).

20) *τέμνω* (Dor. Ion. *τάμνω*), ordinary Greek, *τάμνῃ* Γ 105, *ἔταμον* Δ 155, *τάμνοντο* Σ 528, *ἐκτάμνειν* Λ 515, only at *γ* 175 *τέμνειν*, Hdt. ii. 65 *τάμνουσα*, Heracl. tables *διατάμνειν* (i. 12, ii. 65); Homeric by-form *τέμει*, N 707.

21) *τίνω*. With *ῑ* in Homer: *ζωάγρια τίνειν* Σ 407, *τίνειν οὐκ ἐθέλωσι* Γ 289, *τίνων* B 193. Later the short vowel gradually gains ground: Solon fr. 13, 31, — — *ἔργα τίνουσιν*, Pind. Pyth. 2, 24 *τίνεσθαι*, Theogn. 204 *τίνονται*, but at 740 *ἀντιτίνειν*, Soph. O. C. 635 *οὐ σμικρὸν τίνει* etc. On the relation of the word to *τίνυται* see p. 171 f. If at Princ. ii. 93 the Skt. *kĭnō-mi* is rightly compared, we have therein not only the same root, but also a similar present-formation. By-form *τίω*.

22) *φθάνω*. *φθάνει δέ τε πᾶσαν ἐπ' αἶαν* I 506, cp. Φ 262. But *οὐ* 261 *φθάνοι θνήσκων τις ἄν* Eurip. Or. 941 Dind., *οὐκ ἂν φθάνοις* Aristoph. Eccl. 118. Common to all Greek by the side of *ἔφθην*, *ἔφθασα*, *φθάσω*. Bugge Ztschr. xx. 39 compares the Zd. *fšānajaiti* he sets going, and infers the existence of an Indo-Germ. *spā-na-jā-mi*=**φθα-νάω*.

23) *φθίνω*. *φθίνουσιν νύκτες τε καὶ ἤματα* λ 183. *φθῑνέτω ε* 161, *φθίνοντος τ* 307.—But Pind. Pyth. 1, 94 *οὐ φθίνει*, Isthm. 7, 46 *κατέφθῐνε*, Soph. Aj. 1005, at the end of a trimeter, *φθίνεις*. Cp. p. 171 f.

24) *φύνω* only in the list of verba barytona in *-νω*. (Herodian ed. Lentz i. 450.)

Two of these forms, 12 and 16, have come from reduplicated present-stems.

Besides these forms, which have all retained the characteristic nasal, there are three which apparently had it originally, but have lost it by a process of progressive assimilation, i.e.

25) *εἴλω*, press hard (*εἰλομέων* Θ 215), Aeol. *ἔλλω* (*ἀπέλλειν· ἀπείργειν* Hesych.), Dor. *ϝήλω* (*γήλεσθαι· κατέχεσθαι* Hesych.). Brugman Stud. iv. 122 conclusively infers from these forms a primary *ϝέλλω*, and shows by a reference to the by-form *εἴλλω* (for *ϝελλϳω*) that it is probable that *ϝέλλω* came from *ϝελνω*.

On 26) *βούλομαι* and 27) *οὐλόμενος* cp. p. 172 f.

II. PRESENTS IN *-ανω, -ανο-μαι.*

A) Those with Nasalised Root-syllables.

1) *ἀνδάνω*, poetical from Homer onwards (*ἀνδάνει β* 114, *ἤνδανε* O 674). Rt. *σϝαδ*, by-form *ἥδομαι*.

2) *γρυμπάνω*. A rare word, translated by *ἐπικάμπτειν, γρυποῦσθαι* (Hesych., Bekk. Anecd. p. 228). By-forms *γρυπαίνω, γρυπανίζω, γρύπτω*, clearly related to *γρῦπός*, curved, bent.

262 3) *δαγκάνω*, a by-form of *δάκνω*, only given by grammarians, who mention a form *δήκω* as well (cp. p. 156).

4) *ἐρυγγάνω*, used by Attic poets instead of *ἐρεύγομαι*, of which there is older evidence, Eur. Cycl. 523, also in Hippocr. and later writers.

5) *θιγγάνω*, in Attic poets (Aesch. Sept. 44, Soph. O. C. 328), and here and there in later prose (Aristot.). A similar present-formation is to be seen in the related Lat. *fingo* (Princ. i. 223).

5 b) *κυνθάνει· κρύπτει*, Hesych. (G. Meyer 92).

6) *κλαγγάνω*, Soph. fr. 782 D. *ὅπου τις ὄρνις οὐχὶ κλαγγάνει* (cp. Aesch. Eumen. 131), elsewhere only twice, compounded with *ἐπ-ανα*. A by-form *κλαγγέω* in Theocritus, and, in a somewhat different meaning, *κλάζω*. Cp. *κέκλαγγα* (by the side of *κέκληγα*), *κλαγγή* and the Lat. *clangor*.

7) *λαγχάνω*. In extensive use from Homer onwards (*ι* 160 *ἐς δὲ ἑκάστην ἐννέα λάγχανον αἶγες*). The nasal passes also into the perfect *λέλογχα*. If Fick[3] i. 748 is right in comparing the Ch.-Sl. *po-lą̌č-ą* (*λαγχάνω*) and the Lith. *per-lenk-i-s*, a man's due, we have in these words additional testimony to the early presence of this nasal.

8) *λαμβάνω*. Present-forms occur from Pindar onwards (Ol. 1, 83). Importance attaches to the Herodotean forms *λάμψομαι, καταλαμπτέος, ἐλάμφθην*, but not to the late *καταλήμψομαι, ἀνελήμφθη*, and the like. Cp. *λάζυμαι, λάζομαι*. Job. Schmidt, Vocal. i. 118, gives a most minute discussion of the traces of similar nasal formations in Sanskrit. Cp. above p. 174.

9) *λανθάνω*. Common to all Greek from Homer onwards (*ἐλάνθανον* N 721, *λανθανόμην μ* 227), by the side of *λήθω* (Dor. *λάθω*), *ληθάνω*.

10) *λιμπάνω*. Once in Thuc. (viii. 17, *καταλιμπάνουσι*), and then in later writers. *λείπω* is immeasurably more frequent. Cp. the Lat. *linquo*, Skt. *ri-ṇá-k-mi*, and the Goth. *af-lifna-n*. Princ. ii. 60.

11) *λυγγάνομαι*, sob (Hesych.). Cp. *λύγξ*.

12) *μανθάνω*. Common to all Greek from Sophocles onwards. Cp. *μενθ-ήρη· φροντίς* Hesych. Princ. i. 387.

13) *πανθάνω*, late and rare: Schol. Eurip. Hec. 1130, *ἀντὶ τίνος ταῦτα πανθάνεις;* Apollonius and Herodian gave the form (ed. Lentz
263 ii. 545). *πανθάνω : πένθος :: μανθάνω : μενθήρη*. Reasons in favour of the connexion with *πένομαι, πόνος* may be found at Princ. ii. 365.

14) *πυνθάνομαι*. Homeric, along with *πεύθομαι* (*πυνθάνομαι β* 315, *πυνθανόμην ν* 256), new-Ionic and Attic. The nasal is probably only to be found in the related Lith. *bundù*, I am awake, and *bùdinu*, I wake (trans.). Princ. i. 325.

15) *τυγχάνω*. Common to all Greek from Homer onwards (*παρετύγχανε* Λ 74, *ξ* 231 *τύγχανε*) with *τεύχω* in a different meaning. Cp. the Lith. *tenkù*, I fall to the share of, Ch.-Sl. *tŭk-nǫ-ti*, figere.

16) φυγγάνω. From Aeschylus onwards of pretty frequent occurrence as a by-form of φεύγω, especially in compounds.

17) φλυνδάνω. ἐκφλυνδάνειν=ἐκφλύζειν, ἐκφλύειν, break out, of sores (Hippocr.).

18) χανδάνω. From Homer onwards (Ψ 742 χάνδανε). The nasal recurs in κέχανδα and the Lat. *pre-hendo* (Princ. i. 242), and perhaps in the Ch.-Sl. *žędati*, to want (Joh. Schmidt Vocal. i. 73).

B) PRESENTS IN WHICH THE ROOT SYLLABLE HAS NOT BEEN NASALISED.

With the single exception of ἰκ-άνω all the root-vowels are long either by nature or by position. For the rest the stems are of the most various character, and this variety will necessitate a further subdivision of these presents.

a) ανω added to stems which show no present expansion before it.[5]

1) ἀλφάνω. In Attic poets, Homer knows only ἦλφον, ἄλφοι, ἄλφοιν.

2) αὐξάνω. In use with Herodotus, Attic writers and others by the side of αὔξω (Homeric ἀέξω), which holds its own all through (cp. Veitch, p. 101). Another but a late and rare by-form is αὐξέω (cp. αὐξήσομαι etc.). The latter reminds us by its formation of the Lat. *aug-eo* just as αὐξάνω does of the Lith. *áugin-ti* and the Goth. *bi-auk-nan* increase. αὔξω itself has a stem already expanded by σ.[6]

3) ἐρῡκάνω. Imp. ἐρύκανε κ 429, 2nd imperat. κατερύκανε Ω 218. 264 ἐρύκω has been developed from ἐρυ (ἔρυμαι) by κ.

4) εὐδάνει a doubtful reading in Lycophron 1354.

5) ἵκάνω, poetical from Homer onwards (ἱκάνεις ἡμέτερον δῶ Σ 385, χρειὼ γὰρ ἱκάνεται Κ 118). Cp. ἵκω, ἱκνέομαι.

6) κῡδάνω. Only in Homer: κυδάνει Ξ 73, κύδανον Υ 42 by the side of κυδαίνω, κυδιόων.

7) οἰδάνω. οἰδάνει Ι 554, οἰδάνεται Ι 646, οἰδάνοντ' Aristoph. Pax. 1166, elsewhere οἰδέω (even as early as ε 445: ᾠδεον cp. οἰδήσω, ᾠδησα), later οἰδάω, οἰδαίνω.

8) ὀφλάνω. ὀφλάνειν· ὀφλισκάνειν, ὀφείλειν Hesych. Cp. Phot. Lex. By-forms ὄφλω (late), ὀφείλω, ὀφλίσκω (Suid.), ὀφλισκάνω.

b) ανω added to forms of the lengthening class.

9) ἠχάνω, to be inferred from Hesychius's ἤχανεν· εἶπεν from the rt. ἀχ=Skt. *ah* Lat. *ag* (*âjo*). Elsewhere there is only ἠμί, pret. ἦ-ν (p. 103, cp. Stud. ix. 463 ff.).

10) θηγάνω. θηγάνει· ὀξύνει Hesych., and accepted on this authority by Herm. and Dind. at Aesch. Ag. 1535. Elsewhere θήγω.

11) κευθάνω. ἐκεύθανον Γ 453, elsewhere κεύθω (κυνθάνω, p. 180).

[5] On the Homeric ἤλδανε see Chap. XIII. § 3.

[6] βρατάνει· ῥαΐζει ἀπὸ τῆς νόσου Hesych. is connected by G. Meyer with the root *vart* (vertere), so that it would mean 'he takes a turn,' i.e. for the better.

12) *ληθάνω*. *ληθάνει η* 221, causatively, 'he makes to forget,' cp. *λήθω*, *λανθάνω*, both in Homer.

c) *ανω* united with reduplication, cp. *ἱστάνει*, *πιμπλάνεται*, p. 179.

13) *ἰσχάνω*. By-form *ἴσχω* for *σι-σχω*. Homeric: *ἰσχάνει Ξ* 387, *ἰσχανέτην* P 747. Cp. *ἰσχανόωντο*.

d) *ανω* added to stems expanded by *τ*.

14) *ἁμαρτάνω* (cp. p. 163). Common to all Greek from Homer onwards (*ἡμάρτανε* K 372, *λ* 511).

15) *βλαστάνω*. From Aeschylus onwards (Sept. 594).

16) *βλυστάνω* a by-form of *βλύζω* used by ecclesiastical writers. Cp. *ἀναβλυστάνω* (Hesych.), with the apparently apocryphal by-form *ἀναβλυσθάνω*.

16 b) *ὀπτάνομαι* in late prose in the sense of *ὁρῶμαι*.

e) *ανω* attached to forms of the *ι*-class.

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17) *ἀζάνω*, only *ἀζάνεται* hymn. in Ven. 270, elsewhere, including Homer, *ἄζω*, *ἀζαίνω*.

18) *ἰζάνω* pretty frequent from Homer onwards (K 92 *ἰζάνει, καθίζανον ε* 3, trans. *ἵζανεν εὐρὺν ἀγῶνα* Ψ 258). Also *ἵζω*, *ἕζετο*.

18 b) *φυζάνω* (?) Hesych. *φυζάναι· φυγεῖν, δειλιάσαι*.

f) *ανω* added to the inchoative *σκ*.

19) *ἀλυσκάνω*, only *ἀλύσκανε χ* 330, cp. *ἀλύσκω*, *ἀλυσκάζω*.

20) *ἀμβλισκάνω* (Pollux iii. 49) a by-form of *ἀμβλίσκω*.

21) *ὀφλισκάνω*, Attic by the side of *ὀφείλω*. Cp. *ὀφλάνω* no. 8.

22) *ἐνριγισκάνω*. *ἐνριγισκάνειν· ἐνριγοῦν* Hesych.

g) *ανω* after an expanding *θ* (cp. p. 175).

23) *αἰσθάνομαι*, in general use from Sophocles onwards. *αἴσθομαι* is a questionable by-form. Clearly the word is connected with *ἀΐω*, which in *ἐπαΐω* shows similar meanings.

24) *δαρθάνω*. Compounded with prepositions in Attic prose: *καταδαρθάνειν*, *ἐπικαταδαρθάνειν* (Plato). *δαρ-θ* is certainly to be referred to a shorter *δαρ*, *δρα* (Princ. i. 288).

25) *ἀπεχθάνομαι*, an Attic word, may find a place here although the origin of the word and all its kin (*ἔχθος*, *ἐχθρός*) is obscure. *ἀπεχθάνεαι β* 202.

25 b) *ὀλισθάνω* a thoroughly Attic present, later *ὀλισθαίνω*. In Homer there is only *ὄλισθε*.

Contrary to all analogy are the apparently denominative forms:

26) *μελάνει*, H 64 *μελάνει δέ τε πόντος ὑπ' αὐτῆς*. *κυδάνω*, which Lobeck (Rhem. 235) compares with it, differs from it in not having a distinct noun-form with the same stem. Is it possible that *μελάνω* is a

verb formed straight from the root in the sense of 'to grow turbid'? μόλος, μολύνω are certainly related (Princ. i. 461). Cp. G. Meyer 86.

27) φασγάνεται· ξίφει ἀναιρεῖται. This strange word Mor. Crain (Philol. x. 582) conjectures to have stood for *σφαγ-σκ-άνε-ται, and the subst. φάσγανο-ν for *σφαγ-σκ-ανο-ν. If he is right—and a defence might easily be found for the aphaeresis of the initial σ—we should have 266
a formation like ὀφλ-ι-σκ-άνω. But the conjecture is a doubtful one.

There are two isolated verbs in -ινω which may find a place in an appendix to the verbs in -ανω. (Cp. pp. 172 and 177.)

1) ἀγίνω preserved in ἀγινέμεναι υ 213, ἀγίνεσκον ρ 294, elsewhere ἄγω, ἀγινέω. (Princ. i. 208.)

2) ὀρίνω, poetical from Homer onwards. ὀρίνει Λ 298, ὀρίνονται Λ 525. Lesb. ὀρίνιω.

III. PRESENTS IN -νάω AND -ανάω.

A) In -νάω, and consequently by-forms to those in -νη-μι.

1) δαμνάω cp. p. 116 f.

2) κιρνάω ἐκίρνα κ 356, κιρνᾷ Hdt. iv. 66.

3) κρημνάω. κατεκρημνῶντο hymn. Homer. 7, 39, other forms not till late prose.

4) πιλνάω. 3rd sing. act. πιλνᾷ Hes. Opp. 510, 2 sing. mid. πιλνᾷ hymn. in Cerer. 115.

5) πιτνάω cp. p. 117.

B) In -ανάω.

1) βραυκανᾶσθαι· ἐπὶ τῶν κλαιόντων παιδίων λέγεται, ὡς μίμημα φωνῆς Hesych. cp. βρυκανήσομαι· βοήσομαι, Nicand. Alexipharm. 221 with the scholia.

2) δεικανάομαι. δεικανόωντο δέπασσιν Ο 86, δεικανόωντο ἔπεσσιν ω 410 (cp. σ 111) in the sense of greet, while on the other hand the act. δεικανάασκεν Theocr. 24, 56 'showed,' for which reason Buttmann, probably rightly, connects the forms with δείκνυμι (cp. I 196 δεικνύμενος προςέφη) and δείδεκτο. Hesych. has δεκανᾶται· ἀσπάζεται, perhaps formed from the rt. δεκ (cp. δέχνυμαι p. 110), just in the same way as the other from δεικ.

3) ἐρυκανάω, only α 199 οἵ που κεῖνον ἐρυκανόωσ' ἀέκοντα and in Q. Smyrn. Cp. ἐρυκάνω.

4) ἰσχανάω· ἰσχανάασκον Ο 723, ἰσχανόωντο Μ 38. Cp. ἰσχάνω.

5) κραυγανάομαι. Only Hdt. i. 111 παιδίον κραυγανώμενον.

6) κὔκανάω Aristoph. Thesm. 852, ib. v. 429 κυκανᾶν; both related 267
in some hitherto unexplained way to κυκάω, κυκεών.

7) ὀριγνάομαι cp. p. 111.

8) παμφανάω, epic from Homer onwards, an intensive from φαίνω like the related παμφαίνω. Only in the participle αἴγλη παμφανόωσα Β 458, τεύχεα παμφανόωντα Σ 144.

9) ὑφανάω. Only in Maneth. 6, 433 φάρεά θ' ὑφανόωντας. A by-form therefore of ὑφαίνω.

IV. PRESENTS IN -νέω.

1) *ἀγνέω. ἀγνεῖν· ἄγειν* Κρῆτες Hesych. The form is a connecting link between *ἄγω* and *ἀγινέω*.

2) *βυνέω διαβυνέονται* Hdt. iv. 71, *ἐβύνουν* Ar. Pax 645, cp. above p. 178 *διαβύνεται*. Its origin is altogether obscure. *βύσω, ἔβυσα* show that *νε* is only a present tense expansion. In Aristotle there is the shorter present-form *βύω*, and still later *βύζω*.

3) *δυνέω*. A rare by-form of *δύνω* (cp. p. 178), *ἐνδυνέουσι* Hdt. iii. 98.

4) *θυνέω. ἐθύνεον* only Hes. Scut. Herc. 210, 286 cp. *θύνω*.

5) *ἱκνέομαι*. Only twice in Homer *ι* 128 *ἱκνεύμεναι, ω* 339 *ἱκνεύμεθα*. In common use with Herodotus and Attic poets.

6) *-ισχ-νέο-μαι. ἀμπισχνοῦνται* is an ill-attested reading in Aristoph. Av. 1090, which has been altered to *ἀμπισχοῦνται* or *ἀμπίσχονται* (Dind.). Perhaps though the form is a true one after all, as it stands in complete analogy to *ὑπ-ισχ-νέο-μαι*, which is in use from Herodotus onwards. The syllable has here been added to the reduplicated stem *ἰσχ* for *σι-σεχ*. Cp. *παμφανάω* ~ *ιμπλάνω*. We have met with the same reduplicated stem in *ἰσχάνω* and *ἰσχανάω*.

7) **κῑνέω* only partly belongs here, inasmuch as the present-expansion has taken a permanent hold in the verb (*κινήσω* etc.). But *κινέω* is unmistakably founded on *κίνυμαι*.

7 b) **κοννέω*. Aesch. Suppl. 9 *κοννεῖς*, 164 *κοννῶ* for *κοϝ-νέω*. A present to the aor. *ἐ-κόμεθα· ᾐσθόμεθα*, rt. *κοϝ* (Princ. i. 186).

8) *κῦνέω*, Homer (*κύνεον φ* 223), Attic poets and late writers. Homer
268 uses *κύσσα, ἔκυσα*, but it is usually the case in the simple verb and always in the compound *προικυνεῖν* that the *νε* pervades all tense-stems.

9) *οἰχνέω*. Poetical by-form of *οἴχομαι* : *γ* 322 *οἰχνεῦσι, ι* 120 *εἰς-οιχνεῦσι*, also *οἴχνεσκον*, once in Pindar (Pyth. 5, 86 *οἰχνέοντες*) and occasionally in the tragedians.

10) *πιτνέω*. This form which since Elmsley ad Eurip. Heracl. 77, Med. 53 has been expelled from the texts of the tragedians, is well attested by Herodian ad Il. Π 827, where the connexion absolutely requires the reading *πιτνῶν*, which is defended by Lobeck, Lehrs, and Lentz, all the more that we know from other sources that Herodian approved of this form (Herodian, ed. Lentz ii. 1, 290). Since however there appear to be in one or two passages forms with short vowels in a present sense, especially Soph. O. C. 1754 *προςπιτνόμεν* (the M.SS. have the unmetrical *προςπίπτομεν*), Buttmann is certainly right in his assumption that both forms, *πίτνω* and *πιτνέω* (cp. above p. 177), existed side by side, and this does not exclude the possibility of an aorist *ἔπιτνον* which is demanded at Soph. O. C. 1733, with a part. *πιτνών*. Besides the tragedians Pindar appears to be the only writer who knows of these forms.

Following the verbs in *-νέω* comes a single verb in *-ινέω*, just in the same way as a few verbs in *-ινω* came after those in *-νω* and *-ανω*.

11) *ἀγῑνέω* (cp. p. 183 and *ἀγνέω* p. 184) pretty often in Homer (*ἀγινεῖ ξ* 105, *ἀγίνεον Ω* 784) and Herodotus, elsewhere only here and

there. In the Homeric hymns there is also the fut. *ἀγινήσω* in which the present-expansion has gone further than the present.

V. PRESENTS IN *-νω* WHICH POINT TO AN OLDER *-νιω*.

Here again we must recognise two subdivisions: such verbs as add *-ν-ιω*, i.e. a conjunction of the nasal present-expansion of the first main class, and the mark of the *i*-class, to a stem ending in a vowel, and such as take an *α* as well before the *-ν-ιω*. *ἀλθαίνω*, i.e. *ἀλ-θ-αν-ιω* bears to *βα-ν-ιω* exactly the same relation as that of *ἀλφ-άν-ω* to *φθά-νω*.

A) *-ν-ιω* ADDED TO VOWEL ROOTS. 269

The only verb we can put here with certainty is—

βαίνω, in common use from Homer onwards (*βαίνει* Δ 443, *ἔβαινον* ο 145). The *ν* of the primary *βα-ν-ιω* appears in Greek only as a portion of the present-expansion, while the *n* of the corresponding *ven-io* (for *gven-io*) goes all through the verb. Cp. Princ. ii. 73.

The other verbs of kindred origin (cp. below p. 215 f.) retain their *ν* in some at least of their tenses: *κρῑ́νω* from *κρι-ν-jω* fut. *κρῑ́νῶ*, aor. *ἔκρῑνα*, though the perf. is *κέ-κρῐ-κα*, *κέ-κρῐ-μαι*, so that strictly speaking the *ν* is not in them to be regarded as an element of present-expansion, but rather as a root-determinative, the *j* alone, in conjunction with the thematic vowel, being the present-expansion. For this reason we place these verbs in the *j*-class. From the point of view of the historical development we must not be blind to the fact—seen in the relation of *βαίνω* to *venio*—that the processes of root-determination and present-expansion are often almost indistinguishable, as we have already had occasion to remark with reference to the *T*-class.

B) *-αν-ιω* ADDED TO CONSONANTAL ROOTS.

1) **ἀλαίνω*, wander, Eurip. and later authors. It may be doubted whether the verb, like *ἀλάομαι*, is a denominative from *ἄλη*, or has come straight from the root, especially as there are no tenses but those of the present-stem.

2) *ἀλθαίνω*, Hippocr. and late poets, while in Homer *ἄλθομαι* (fut. *ἐπαλθήσομαι*) is in use. By-form *ἀλθήσκω* with the variant *ἀλθίσκω* in Hippocr. The corresponding Skt. rt. *ardh* also forms the present occasionally by nasal additions: *ṛdh-ṇó-mi*, *ṛṇádhmi*.

3) *ἀλιταίνω*. Only *ἀλιταίνεται* Hes. Opp. 330. Also *ἤλιτον*, *ἀλιτέσθαι*, *ἀλιτήμενος*, all Homeric.

4) *ἐριδαίνω* B 342 *αὔτως γὰρ ἐπέεσσ' ἐριδαίνομεν* by the side of Ψ 792 *ποσσὶν ἐρῑδήσασθαι* (old variant *ἐριζήσασθαι*, as I. Bekker writes it). Owing to this fluctuation between the stem with *ν* and the stem without, this verb, although a denominative, is given in this list, while e.g. in the 270 case of *ἐριδμαίνω* (irritate, cp. *ἐρεθιζω*) or *ἐρυθαίνω* (*ἠρύθηνα* Apoll. Rhod.) there was no reason for so doing.

5) *καγκαίνω*. Only *καγκαίνει· θάλπει, ξηραίνει* Hesych., cp. *καγκομένης· ξηρᾶς τῷ φύβῳ*. Brugman Stud. vii. 205.

6) *κηδαίνει· μερίμνᾳ* Hesych. M. Schmidt is perhaps right in holding to be a mistake for *κηραίνει* which is rendered by the same verb.

7) *κροαίνω*, only *κροαίνων* Z 507, O 264 and again in late writers, clearly connected with *κρούω*.

8) *κναίνω* only in Hesych., who renders *κναίνων* by *ἔγκυος ὤν*.

9) *λιταίνω*, only Eurip. El. 1215, cp. *λιτανεύω*, *λιτανεία*.

10) *νηφαίνω* a by-form of *νήφω* in Eustathius.

11) *ὀσφραίνομαι*, from Euripides and Aristophanes onwards, fut. *ὀσφρήσομαι*, aor. *ὤσφροντο*, Aristoph. Ach. 179 and elsewhere, clearly a compound, whose shorter forms are evidently of later origin than itself. One of the most remarkable of these is *ὤσφραντο* (Hdt. i. 80).

12) *τετρεμαίνω*, only in Attic comedy, Aristoph. Nub. 294 *τετρεμαίνω καὶ πεφόβημαι*.

In the case of several of these verbs it is impossible to determine whether the nasal syllable is to be regarded as an expansion of the present tense or of the verb-stem.

The sum total of the verbs of the nasal-class is thus seen to be a very considerable one. The first division (*νω*) contains 27, the second (*ανω*, *ινω*) 50, the third (*ναω*, *αναω*) 14, the fourth (*νεω*) 12, the fifth (*νῡω*) 12, in all 115. Of these 7 verbs it is true occur in 2 of these divisions and 1 in 3. Anyhow there are more than 100 verbs, and if we add to these the 50 verbs in *νυ-μι* and the 8 in *-νημι*, some of which however occur over again in the thematic nasal class, we find that about 150 verbs make use of nasal elements in the formation of the present. Corresponding formations are to be found in great numbers in Sanskrit, and more particularly in the Vedas. In modern Greek presents in *-νω* have become far more numerous still (G. Meyer 48).

CHAPTER X.

THE INCHOATIVE CLASS.

WHILE the verbs we have to deal with in this chapter are by no means 271
without parallels in the wider domain of the related languages, still this kind of present-formation is more than others confined to the Graeco-Italic circle. It is only here that they have developed to any great extent and with any regularity, so that in the common possession of an inchoative class is found to be one of the strongest arguments for the specially close connexion of Greek with the Italian languages. From another point of view the present-expansion under discussion is distinguished from all others by the fact that there is attached to it, though here again almost exclusively within its own narrower circle, and even there not universally, a clear and definite meaning. In one set of instances this meaning is as unmistakable in Greek as it is in Latin, and this fact is one which may throw light on the process of present-expansion generally. For if the present-expansion has in this particular instance to express a special meaning, it is natural to suppose that the variety shown by other forms of such expansion was no mere idle and fortuitous complexity, but was bound up with the effort to distinguish the continuous action not only quantitatively, so to speak, but also qualitatively from the momentary. In the verbs of the class now before us it is the action that is *gradually coming into being* which is distinguished from that which has attained its full realisation. We therefore call this class, notwithstanding the fact that the meaning as above described does not in all cases stand out with equal distinctness, the *inchoative* class.

The mark of this class from the beginning was the syllable *-ska*. Traces of this syllable in the same or a like application are to be found in most of the related languages. No one it is true will now venture to adopt Bopp's assumption (Vergl. Gr. iii.[2] 104) that the numerous 272
Sanskrit desideratives are to be identified with the present-formation now under consideration. Desideratives have two things in common with the inchoatives, the sibilant and the tendency to reduplication. It is conceivable therefore that some one should hit upon the idea of connecting the Skt *ǵi-ǵñā-s-ā-mi* and γι-γνώ-σ-κ-ω. But a nearer examination shows that the tendency to reduplication is only occasionally manifest in the Greek inchoatives and quite unknown in the Latin, and consequently is not an essential characteristic of this class. The *s* then is all that is left. Granting that this comes in both formations from the same source, there would still be the *k* wanting in the Sanskrit forms. It will not be readily admitted that the guttural is, as Bopp assumed, 'only a euphonic accompaniment of the sibilant.' Relinquishing then as we do the attempt to find in the desideratives the Indian representatives of the inchoatives, we are all the more convinced of the connexion of the

latter with a small number of Indian forms, in which the sound *kh*, which elsewhere too takes the place of an Indo-Germanic *sk* (Gk. σκ, Lat. *sc*), is the means of distinguishing the present-stem from the root. There are 6 presents of this formation:

iKKhá-mi	I seek, wish	rt. *ish.*
uKKhá-mi	I shine, grow bright	rt. *vas.*
gáKKhā-mi	I go	rt. *gam.*
jáKKhā-mi	I hold, lift	rt. *jam.*
ṛKKhá-mi	I go, reach	rt. *ar.*
juKKhá-mi	I yield	rt. *ju.*

In the first 4 instances a consonant has manifestly been suppressed before the present-expansion. Besides these 6 instances there is also:

vāñKKhā-mi	I wish	rt. *van.*

The root forms, it is true, a present of its own as well: *vanō-mi*, but *vāñKKhā-mi* is also set down in the Petersb. Dictionary as an expansion of *van*, and is actually found only in the present-stem. *múrKhā-mi*, I grow firm, curdle, congeal, stands over against the participle *mūr-tá-s* curdled and the noun *mūr ti-s* shape, and thus still shows traces of a movable *kh*=*sk*. On the other hand, the same element in the rt. *praKh* 273 (*pṛKKhá-mi*) ask, seek, is not confined within these limits, though in view of the many similar processes in the case of other elements of the same kind, this cannot prevent us from ascribing to it the same origin. Ascoli (Glottologia 228) thinks he can discern in other formations as well, e.g. in *vraçk* tear, and in various roots in *sh*, e.g. *bhāsh* speak, which he compares with φάσκω, traces of the same *sk*. These formations are discussed at length by Pott, Et. Forsch. ii.[2] 622.

In Zend the same element is represented by ç, e.g. *ga-ça-i-ti*=Skt. *gá-KKha-ti*. A very instructive form is the 3rd sing. opt. *ish-açô-i-t* he may wish (rt. *ish*), which we are inclined to follow Schleicher Comp.[3] 762 in referring to the primary form **is-askā-i-t*, while Justi conjectures that it is a desiderative formation. If Schleicher is right, we have in the syllable *aça* from *aska* the type of the Gk. εσκω in ἀρ-έσκω and the Lat. *isco*, e.g. in *in-gem-i-sco*. In Armenian according to Hübschmann (Ztschr. xxiii. 29) *can-ach-em* corresponds sound for sound to the Lat. *gn-ōsc-o*.

We shall have further to consider in detail the analogous Latin verbs of which Corssen ii.[2] 282 ff. gives a complete list as they are of the greatest importance for the elucidation of the Greek forms. There are, however, Oscan and Umbrian parallels as well, e.g. Osc. *com-para-sc-uster* (tab. Bant. 4), which is probably rightly rendered by 'conquisita fuerit.' The stem *parsk*, which we met with in the Skt. *praKh*, appears with a fresh expansion as *pers* in the Umbrian *pers-nī-mu* [1] let him pray (cp. the Zd. *pereç-anyêi-ti* he asks and ὀφλ-ισκ-άνω). The most remarkable Old-Italian form of the kind is the Umbrian *ei-sc-urent* 3rd pl. of a fut. perf. For this form Aufr. and Kirchh. ii. 358 (cp. Bréal Tables Eugubines p. 255) conjecture the meaning *poposcerint*. We have here before us a verb-stem which is found in all the branches of the Indo-

[1] Bréal, *Tables Eugubines*, p. 92, prefers to consider the form a denominative, so that the syllable *nī* would belong to a noun-stem *pers-ni* (cp. the Lat. *fīnī-tu-s*). This is possible.

Germanic languages except Greek and Keltic, sometimes with unintensified, sometimes with intensified *i*, i.e. in the Skt. *i-kkhā-mi*, the Zd. *i-çai-tê*, the Umbr. **ei-scu*, the O. H. G. *ei-sc-ô-n* (Eng. *ask*, Germ. *heischen*), the Ch.-Sl. *is-ka-ti* quaerere, the Lith. *ješ-kó-ti* seek. Since by 274
the side of these formations, in the comparison of which I have followed Fick[3] i. 29, there is the rt. *is* (Skt. *ish*) with the same meaning (Princ. i. 500), it might be maintained that the expanded form is due to the addition of *k*(*a*) only, not of *sk-a*. But it is more probable that *is-skā-mi* was the primary form, and that in it we have the most widely extended instance of the inchoative class of presents.

In the Letto-Slavic languages I know of no analogy beyond this one verb. From the Teutonic it is highly probable that, as Pott assumes, the Goth. *thri-skan*, O. H. G. *dre-ska-n* (thresh), and further the O. H. G. *le-ska-n* (extinguish), *forsc-ô-n* (seek), and the O. N. *ra-ska* loco movere belong here, with which last also the O. H. G. adverb *ra-sko* Germ. *rasch* (quickly) is connected. *Forsc-ôn* is to be referred to the rt. *parsk* (Skt. *prakkh*, Lat *posc* for *porsc*), but has a derivative termination of a similar kind to that which we meet with in the Lat. *misc-eo*=O. H. G. *misc-iu* by the side of *μίσγω*, in the O. H. G. *wunsc-iu* by the side of the Skt. *vāñkkhā-mi*, in *ἠλασκ-άζω* by the side of *ἠλάσκω*. In formation the Gk. *τερύ-σκω* (*τερύ-σκε-το· ἐτείρετο* Hesych.) is almost completely identical with *dre-skan*. Cp. Princ. i. 275. In all cases, however, except in the above-mentioned oriental forms and in Latin, the primitive duality between present stems and verb stems without the *sk* has disappeared.

As to the origin of this present-expansion no certain judgment can be passed. We shall hardly be able to regard anything else as established than that in the syllable *ska* the same root-determinatives which we elsewhere find used separately as *s* and *k* are here in conjunction. We meet with *sk* moreover, as Schleicher points out, in noun-formation as well. The diminutives in *-ισκο*, *-ισκᾱ* show a most evident relationship in their application. The same suffix which in *adolescens* characterises the verb-stem, is in the synonymous *νεανίσκο-ς* the mark of a noun-stem, and it is easy to see the bond which closely unites the *small* as *what is coming into being* with the action which is coming into being or being gradually realised. In accordance, then, with the conjecture we have already repeatedly made as to the origin of expanded present-stems, we shall also regard the stems in *-ska* as noun-stems which, when joined 275
predicatively with the personal terminations as subjects, do duty as present-stems. Of the relation of the iteratives in *-σκο-ν* to the verbs of the inchoative class we shall have occasion to speak later.

It is now incumbent on us to present the reader with a general view of the various ways in which the mass of verbs of this class are formed. It will be most convenient to divide them into 6 groups.

1) The first group consists of verbs in which the characteristic *σκ* is added immediately to the root. This is clearly the oldest formation, e.g. *βά-σκω*, *βό-σκω*, *φά-σκω*, answering to the Latin *pa-sco*, *sci-sco*. Some of these forms are characterised by reduplication as well, which appears in precisely the same shape as in the reduplicating present-stems in *μι*: *γι-γνώ-σκω* (by the side of the Epirot *γνώσκω*=Lat. *gnô-sco*), *δι-δρά-σκω*, *πι-πρά-σκω*, *μι-μνῄ-σκω*, *πι-πί-σκω*.

2) The second group is only distinguished from the first by the fact that the root as compared with other forms has suffered metathesis:

θνή-σκω (by the side of ἔ-θαν-ο-ν), βλώ-σκω (beside ἔ-μολ-ο-ν), in the course of which the vowel always gets lengthened. Here, too, reduplication appears in one instance: κι-κλή-σκω. On the boundary between this group and the preceding there is here and there some debatable ground. If we take our stand in the Indo-Germanic period γνω and μνα have already suffered metathesis as compared with the elsewhere discernible *gan* (our *can*) and *man* (Lat. *me-min-i*). But in Greek the metathesised is the characteristic and only form of these roots, while others only put the vowel after the second consonant to form the inchoative. So, too, *cre-sco* by the side of *Ceru-s*, *Ceres*. Joh. Schmidt (Ztschr. xxiii. 278) makes it appear probable that all primitive presents with a long vowel before the -σκω have suffered metathesis. Cp. below, group 3.

3) The third group contains verbs of a decidedly derivative character. Here the vowels of the derivative conjugation appear before the σκ: α e.g. γηρά-σκω, ἡβά-σκω, η e.g. ἀλδή-σκω, ἀλθή-σκω, ω e.g. ἀνα-βιώ-σκο-μαι, υ e.g. μεθύ-σκω. In many of the instances noun-stems unmistakably form the starting-point for these verbs (ἥβα, βιο, μεθυ). This group corresponds to the numerous Latin denominative inchoatives like *ira-scor*,
276 *invetera-sco*, *clare-sco*, *mature-sco*, *obdormi-sco*. The vowels were probably long from the beginning.

The formations of this group bear to those of the first exactly the same relation as is borne by the Aeolic contracted verbs in μι to the primitive formations of the kind, so that ἡβάσκω : βάσκω :: Aeol. γέλαιμι : φᾶμι. That is, in the one the vowel is radical, in the other it is the result of contraction. The kind of contraction is made plainer to us by the iteratives. ἡβάσκω clearly stands on the same footing as far as formation goes, as εἴασκε Λ 125, τρωπάσκετο (Λ 568). By the side of these contracted forms, however, stand those which are as yet uncontracted, such as γαιετάασκε, γοάασκε, ἰχθυάασκον. No one will doubt that the second α has here been developed out of the thematic ε under the influence of the first, and that the inchoatives took the same course. Consequently we may from ἡβάσκω infer a previous *ἡβαέ-σκω, and this will show us that the σκ, which is the characteristic of the class, was affixed to the full stem of the derivative verbs containing the vowel of the derivative conjugation and the thematic vowel as well. In the case of the e-conjugation the parallel is not so striking: ἀλδή-σκω by the side of ὤθε-σκε. The iteratives either allow the two ε's side by side: φιλέε-σκε, ποθέε-σκε, or they expel one of them: καλέ-σκετο, οἴχνε-σκε. The η of ἀλδήσκω stands on the same footing as that in φορή-μεναι and the Aeol. ἀδική-ει. It is, as has been shown more at length in Stud. iii. 379 ff., to be set down to the after effects of the *j* which originally existed after this vowel. Of precisely the same kind is the ω in the Homeric ὑπνώ-οντας and consequently that in ἀναβιώ-σκομαι where it has swallowed up the thematic vowel. We may conjecture the same process in the case of μεθύ-σκω on the ground of the Aeolic μεθυ-ίω.

This is the proper place at which to deal with a remarkable tradition of the old grammarians, to which Usener has called attention in Fleckeisen's Jahrb. 1865, p. 245 ff. One or two of these inchoatives were in antiquity written with an ι after the stem-vowel. Distinct testimony gives θναί-σκω and μιμναί-σκω as Aeolic (Ahrens, Aeol. 96), testimony which is derived ultimately from Herodian (on Λ 799). But

Usener finds the ι also in the corresponding Ionic and Attic forms θνή-σκω, μιμνή-σκω, and moreover in θρῴ-σκω, and that in part from the 277
same source (Herod. ed. Lentz ii. 521), in part from the readings of M.SS. of unusually ancient character. The latter have also a quite isolated κικλήσκω, while for γιγνώσκω, βιβρώσκω, τιτρώσκω, βλώσκω, and other forms which to all appearance are of exactly the same kind no ι is found. Now, has this difference any foundation in the forms themselves? Ahrens (ut supra) compares the diphthong of θναίσκω with that of the Aeolic μαχαί-τα-ς. In the latter word, as has been shown at length at Stud. iii. 192, I regard αι as the remains of the *aja* (Skt. *ajā-mi*) which originally belonged to words of this kind. A portion too of our inchoatives are to be referred to such derived stems. Such a form as *γηραί-σκω would hence be hardly more to be wondered at than the actually occurring παλαίω. But it happens that these very three verbs which are given with the ι, θνή-σκω, μιμνή-σκω, θρώ-σκω, are *not* denominative, but, for all we can see, have come straight from the roots. Still we shall hardly find any other way of explaining these extraordinary forms than that of presupposing as a preliminary step *θνα-ί-ω, *μι-μνα-ί-ω, *θρῴ-ω, from which the ι has passed into the inchoatives. For to maintain, on the ground of these few verbs, that all inchoatives once ended in -ισκω, and that it is merely owing to a corrupt tradition that the ι has in other cases disappeared, is hardly a justifiable course, especially as the analogies adduced from Sanskrit and Zend place it beyond a doubt that the ι did not belong to the original characteristics of this class. Otherwise Joh. Schmidt Voc. ii. 319.

4) In a fourth group we perceive the existence of an ε or ι which has attached itself to the root, the final letter of which is a consonant; ε only in a single present, ἀρ-έ-σκω, with which we may compare the Lat. *trem-e-sco* occurring in Lucretius and Vergil (Corssen ii.[2] 283), though it is frequent on the other hand in the iteratives which by their formation altogether belong here: πελ-έ-σκετο, ἴδ-ε-σκεν, μορμύρε-σκε. In the place of this ε we elsewhere find an ι: ἀλ-ί-σκομαι, ἁπαφ-ί-σκω, ἁραρ-ί-σκω, εὑπ-ί-σκω, and the same in Latin: *ap-i-sco-r*, *pac-i-sco-r*, *in-gem-i-sco*. The first of these vowels is regarded by Schleicher Comp.[3] 768 as identical with the thematic vowel, the second he sets down as an auxiliary vowel. It is however, as Corssen has seen, hardly possible to separate the two. We shall not be far wrong if we regard the ι, just as in ἀμφ-ί-σκω and in 278
ἴσ-θι from the rt. ἐς, as a weakened ε and identify it with the ε which we meet with e.g. in ἀρε-τή, ἤρε-σα, and in numerous other verbal and nominal forms e.g. ᾐδ-έ-σα-τυ, νέμ-ε-σι-ς, μεν-ε-τός. The ι which introduces itself in a large number of Sanskrit forms, especially of the aorist and future, is very much the same thing. If we were quite sure of the above-mentioned Zend *ishaçô-it* we should have in it a remarkable testimony to the descent of this vowel from an original *a*.

5) A fifth group is formed by the stems, ending for the most part in a consonant, which endeavour to join themselves immediately to the class-characteristic. This process is not unattended by loss of sound. A guttural has disappeared in δει-δί-σκο-μαι (rt. δικ) cp. δί-σκο-ς, which is probably for δικ-σκο-ς from δικεῖν throw, ἐ-ί-σκω (rt. ἰκ), ἴ-σκω speak (rt. ϝεκ, ϝεπ), λά-σκω (rt. λακ), τι-τύ-σκο-μαι (rt. τυκ, τυχ), apparently too in ἰ-ά-σκειν· ἄγειν (Hesych.), to which λέ-σχη is a corresponding form if it really stands for λεχ-σκη (Mor. Crain Philol. x. 581), a θ has disappeared

in κλώ-σκων· ἐπικλώθων, a ν in χά-σκω rt. χαν, unless we prefer to go straight back to the rt. χα. The related Lat. *hi-sco* (by the side of *hie-ta-re*, *hiu-l-cu-s*) does not give us the means of deciding the point. Quite by itself stands the denominative πινύ-σκω which is clearly derived from πινυτό-ς. So too the Lat. *di-sco* by the side of *didic-i*, *po-sco* for *por-sco*.

6) Lastly we include in a sixth group those verbs in which the original σκ appears in a mutilated form. This mutilation is of three kinds. The σκ appears as σγ in μίσγω by the side of the Lat. *misc-eo*, the γ in which we shall discuss minutely hereafter, and further in δύσγω· ἀποδύω Hesych. by the side of ἐνδιδύ-σκω N. T. σχ for σκ is shown in πά-σχω, which verb has been discussed at Princ. ii. 365. The θ of ἔπαθον, πέπονθα as the Lat. *pa-ti-o-r* also shows, does not belong to the root, for which we are left with πα (whence πῆ-μα) or παν (cp. πέν-ο-μαι, πόνο-ς). Consequently the θ has most likely nothing to do with the χ of the present-formation. The aspiration of a tenuis is however not unexampled. Lastly, in a number of forms after aspiration had taken place the σ which was the source of the aspiration fell away, as in ἔρ-χο-μαι for *ἐρ-σκο-μαι by the side of the Skt. *ṛ́kkhā-mi*, in τρύ-χω by
279 the side of the τερύ-σκω mentioned on p. 189, and in several verbs in which the χ overstepped the original limits which confined it to the present-stem, as in εὔ-χο-μαι by the side of the Skt. *vā́ñkkhā-mi* mentioned on p. 188, and the O. H. G. *wun-sc-ian*. Among the forms with a simple χ for σκ special interest attaches to στει-χ́ω if, as is probable, it belongs here, inasmuch as the α here takes the place of the ι or ε which is usually found elsewhere. This α finds its only analogy in the often-mentioned Zd. *ish-açôit*.

If we conclude by taking a survey of the instances in which this method of present-formation in any of its modifications is to be found applied to the same root in two or more of the Indo-Germanic languages, whether the forms are expanded by other stem-forming elements or not, we shall find the following 10 :

Skt. *gákkhá-mi*	Zd. 3rd sing. *jaçai-ti*		βάσκω.
„ *ṛ́kkhā-mi*			ἔρχομαι.
„ *vā́ñkkhā-mi*			εὔχομαι O. H. G. *wunsc-iu*.
„ *prkkhā́-mi*	Zd. *pereçā*	Lat. *po(r)sco*	O. H. G. inf. *forsc-ô-n*.
„ *ikkhā́mi*	Zd. 3rd sing. *içaitē*	Umbr. *ei-scu*	O. H. G. inf. *ei-sc-ô-n*
			Ch.-Sl. inf. *i-ska-ti* Lith. *ješ-kó-ti*
			μίσγω Lat. *misc-eo* O. H. G. *misc-iu*.
Armen. *can-achem*		γι-γνώ-σκω	Lat. *gno-sco*.
(cp. above p. 188)		μι-μνή-σκω	„ *-min-i-sco-r*.
		χά-σκω	„ *hi-sco*.
		τερύ-σκω	O. H. G. inf. *dreskan*.

We have now to give a list of all the Greek verbs with inchoative presents.

I. -σκω, -σκο-μαι ADDED DIRECTLY TO VOWEL ROOTS.[2]

1) βάσκω. βάσκ' ἴθι B 8, παρέβασκε Λ 104 (not an iterative), of isolated occurrence in Aeschylus and Aristophanes. In a causative sense : B 234 κακῶν ἐπιβασκέμεν νῆας Ἀχαιῶν.

[2] Those which are reduplicated are marked with a *.

2) *βόσκω* used from Homer onwards (λ 365 *οἷά τε πολλοὺς βόσκει γαῖα μέλαινα πολυσπερέας ἀνθρώπους*) by poets and occasionally by prose-writers.

3) **γι-γνώ-σκω* in general use from Homer onwards (*γιγνώσκω σὲ θεά* E 815), only its place is often taken by the by-form *γῑνώσκω*, which has been adopted by Bergk and Mommsen in Pindar, e.g. Ol. 6, 97, though with Attic writers it is accounted a late form. In Homer editors are probably right in retaining *γιγνώσκω*, although according to La Roche Textkr. 220 the Ven. A only once (Ψ 240) has *γιγνώσκω*. The correct explanation of the form *γῑνώσκω* (the length of the *ι* is attested by Herodian ii. 179), as the result of compensatory lengthening, is given by Brugman Stud. iv. 103. The Epirot *γνώ-σκω* is remarkable as being identical with the Latin *gnosco* (Etym. Orion. p. 42, 17). 280

4) **δε-δί-σκο-μαι*, frighten, with the remarkable substitution of *ε* for *ι* in the reduplication, is only found at Aristoph. Lys. 564 *ἐδεδίσκετο τὴν ἰσχαδόπωλιν*, and has been adopted as an emendation at hymn. in Merc. 163 : *τί με ταῦτα δεδίσκεαι*, for the senseless *τιτύσκεαι* of the M.SS. *δειδίσσομαι*, of the same meaning, is more common.

5) **δι-δρά-σκω*, in use from Herodotus onwards (*ἀπο-διδρή-σκω*) in compounds, particularly with *ἀπό*.

6) **ἐν-δι-δύ-σκω* N. T. in a transitive sense 'to put on,' middle 'to wear.'

7) *θρά-σκειν· ἀναμιμνήσκειν* Hesych. Cp. Lobeck Rhem. 65, Princ. i. 319. The rt. *dhar*, hold, underlies the word. *θρῆσκος*, *θρησκεύειν*, and *θρήσκω* are of a similar formation.

7*b*) **κατ-ε-κί-κλα-σκε· κατέκλα* Photii Lexicon.

8) **μι-μνή-σκω* from Homer onwards (*ξ* 168 *·μηδέ με τούτων μί-μνησκ'*), middle used along with *μνάομαι*. On *μναίσκω* (E. M. 452, 35) and *μι-μναί-σκω* cp. p. 190 f. The same present formation is to be seen in *re-mini-scor*, *commini-scor*.

9) **πι-πί-σκω*, give to drink, is only found in Hippocr. and Lucian.

10) **πι-πρά-σκω* rare, Homer has *πέρ-νη-μι* instead (cp. above p. 117), *πιπράσκεται* Lys. 18, 20, *πιπρασκόμενα* Plat. Phaedo 69.

11) **πι-φαύ-σκω*, poetical from Homer onwards, where the *ι* is sometimes short (λ 442), sometimes long (Κ. 478, cp. hymn. in Merc. 540). At Hes. Theog. 655 there is the variant *πιφάσκεαι* for *πιφαύσκεαι*. The non-reduplicated compounds *διαφώσκειν*, *ἐπιφαύσκειν*, *ὑποφαύσκειν* (Hdt. iii. 86 *ἅμ' ἡμέρῃ διαφωσκούσῃ*) are now written in Herodotus with an *ω*, and in Aristotle with an *αυ*, and are intransitive.

12) *φάσκω*. In Homer *ἔφασκον*, *φάσκε*, in Attic writers *φάσκω* as a conj., *φάσκοιμι*, *φάσκειν*, *φάσκων*, not so often in the indicative. 281

II. *-σκω*, *-σκο-μαι* ADDED TO CONSONANTAL ROOTS WHICH HAVE BECOME VOCALIC BY METATHESIS.

1) *βλώ-σκω*. *καταβλώσκοντα* π 466, *προβλωσκέμεν* τ 25, *προβλώσκειν* φ 239, 385, elsewhere only in Alexandrine poets, while the aor. *ἔμολον* is used by poets of all times.

2) **βι-βρώ-σκω* a very rare present, cited by Veitch only from Hippocrates, Plutarch (Mor. 1059 F. *περιβιβρώσκοντα*) and Babrius (108, 9 *βιβρώσκων*), while other tenses, and especially the perfect, are

far more common.—Hesych. has the non-reduplicated by-form *ἀναβρώσκων· κατεσθίων*. Cp. *γνώσκω* I 3.

3) Dor. *θνᾱ́-σκω* (Pind. Ol. ii. 21), Ionic and Attic *θνήσκω*, in common use from Homer onwards. The Aeolic *θναίσκω* has been discussed already on p. 190 f.

4) *θρώ-σκω*, in poets from Homer onwards (*θρώσκουσι* E 772), and in Herodotus. The by-form *θόρνυμαι* was mentioned on p. 110.

5) **κι-κλή-σκω* tolerably common in both active and middle from Homer onwards (χ 397, I 569, *o* 403, Pindar fragm. 64 Be. *κικλήσκοισι*).

6) *ῥή-σκο-μαι* only in Hesych. *ῥησκομένων· λεγομένων*, and therefore from the rt. *ϝερ*, cp. *ῥῆμα εἴρηκα* etc.

There would be some justification for putting *γιγνώσκω*, *θράσκω*, *μιμνήσκω* and *πιπράσκω* in this list instead of in I. I have not done so, however, because the consonantal roots *gan*, *dhar*, *man*, and *par* either do not survive in Greek at all, or show no regular alternation with the corresponding vocalic stems.

III. *-σκω*, *-σκο-μαι* ADDED TO VOCALIC STEMS OF TWO OR MORE SYLLABLES.

1) *ἀᾱ́-σκει· βλάπτει, φθείρει* Hesych., a present to Homer's aor. *ἄασε*, mid. *ἀάσατο* (cp. *αὐάτα* Pind.=*ἄτη*).

2) *ἀέ-σκο-ντο* (also *αἰέσκοντο*)· *ἀνεπαύοντο, ἐκοιμῶντο* Hesych. (*ἀέσκω* is cited by Herodian i. 436), a present to the Homeric aor. *ἄεσα*.

282 3) *ἀλθή-σκω* intrans. heal, only in Hippocrates, with the variant *ἀλθίσκω* (like Class IV.). Other present-forms are *ἄλθο-μαι* and *ἀλθαίνω* (trans. cp. p. 185). *ἄλθεξις* Hippocr.

4) *ἀλύ-σκω*. *ἀλύσκων* χ 363, 382, elsewhere only in Apoll. Rhod. The forms *ἀλύξω*, *ἤλυξα* in Homer and the tragedians suggest that *ἀλύσκω* has come from **ἀλυκ-σκω*. But *κακὸν μόρον ἐξαλύοντες* hymn. in Bacch. v. 51, and the common forms *ἀλεύω*, *ἀλέομαι* point to a vocalic stem *ἀλυ*, which must have been developed from *ἀλ* (cp. *ἄλη*, *ἀλάομαι*) in a similar way to that in which *ϝερυ* watch, discussed on p. 122, was developed from *ϝερ*, the Skt. *var*, and *ἰλυ* from *ϝελ*. The guttural stem therefore must have been made either independently of the inchoative present-form or else out of it, by the repression of the sigma.

5) *βιώ-σκο-μαι*, only Aristot. Meteorol. i. 14 *ἕτεροι τόποι βιώσκονται*, *ἀναβιώσκεται* Plato Symp. 203 e, besides which there is in late prose the active *ἀναβιώσκω*. The corresponding aorist-forms are of more frequent occurrence.

6) *γανύ-σκο-μαι* first cited from Themistius. Cp. *γάνυ-μαι* above p. 112.

7) *γενειά-σκω* Plato Symp. 181 d, Xenoph. to get a beard. By-form *γενειάζω*, *γενειάω*.

8) *γηρά-σκω* common to all Greek from Homer onwards (*γήρασκε* P 325, *γηράσκει η* 120), by the side of *γηρᾶν* in the same sense (Xen. Cyr. iv. 1, 75). Cp. *ἐγήρᾱν* p. 134 and Lobeck on Buttm. Ausf. Gr. ii. 393.

9) *ἠβά-σκω* from Euripides onwards, in pretty much the same sense as *ἠβάω*, although Moeris p. 198 Be. says: *ἠβάσκειν ἐπὶ τῶν παίδων τῶν ἀρχομένων ἠβᾶν ὡς ἐπὶ τὸ πλεῖστον Ἀττικοί*. Eurip. Alc. 1085 *νῦν δ' ἔθ' ἠβάσκει κακόν*, Xenoph. Anab. iv. 6, 1 *πλὴν τοῦ υἱοῦ τοῦ ἄρτι ἠβάσκοντος*.

10) ἠλάσκω. B 470 αἵ τε κατὰ σταθμὸν ποιμνήιον ἠλάσκουσιν, cp. N 104, by-form ἠλασκάζω also epic.

11) ἱλά-σκο-μαι I propitiate Z 380, A 472 and later, always transitive. In the same sense ἵλαμαι hymn. Hom. 21, 5, Homeric ἱλάομαι (cp. p. 119), Aesch. Suppl. 117, 127 ἱλέομαι. ἱλήκῃσι on the other hand stands at φ 365 in an intransitive sense. The κ in this form is of the same nature as the guttural which appears in ἀλύξω.

12) μεθύ-σκω, intoxicate, more commonly μεθύ-σκο-μαι in Herodotus 283 and Attic prose.

13) πωτάσκεται (?) only Orac. Chald. xxviii. p. 23 according to Lobeck Rhem. 249, though according to Steph. Thes. s.v. the M.SS. have πωτάσκετο, which may be an iterative.

14) σελά-σκων λάμπων Theognosti Canones, Cramer Anecd. Oxon. iv. pp. 11, 19.

15) τερύσκεται· νοσεῖ, φθίνει Hesych. to be compared with τερύσκετο· ἐτείρετο and τέρυ (better τερύ)· ἀσθενές, λεπτόν.

16) τρωπασκέσθω· μεταβαλλέσθω, ἐπιστρεφέσθω.

IV. -σκω, -σκο-μαι AFFIXED AFTER THE ADDITION OF A SHORT VOWEL.

1) ἀλθ-ί-σκω a variant to the ἀλθή-σκω in Hippocrates, mentioned at III 3.

2) ἀλ-ί-σκο-μαι from Pindar onwards in poetry and prose. Homer has only ἅλων, ἁλώμεναι etc. The root (Princ. ii. 169) must be ϝαλ, ϝελ (ἄλυ-σι-ς, εἴλλω).

3) ἀμβλακ-ί-σκω, a Doric present to the aor. ἤμβλακο-ν (Archil. fr. 73 Be.[3]), which in Pindar and the tragedians is ἤμπλακον. ἀμβλακίσκω is only attested by two passages of the Pythagorean Theages in Stobaeus Floril. i. 67, 68 and one of the Pythagorean authoress Phintys Stob. Floril. lxxiv. 61, and ἀμπλακίσκω not at all.

4) ἀμβλ-ί-σκω from Plato onwards, especially in compounds. The forms from the st. ἀμβλω are more frequent. Eurip. (Androm. 356) has also ἐξαμβλοῦμεν in a causative sense. Hesychius gives the by-form ἀμβλύ-σκει· ἐξαμβλοῖ. κυρίως δὲ ἐπὶ ἀμπέλου. καὶ ἐκτιτρώσκει. Σοφοκλῆς Ἀνδρομέδῃ. ἀμβλώσκω, attested by Suidas, is cited in Steph. Thes. from Galen and other late prose writers. Perhaps ἀμβλύ-ς or a by-form *ἀμβλο (Princ. i. 406, ii. 396) is the word which furnished the stem for the verb.

5) ἀνᾱλ-ί-σκω from Pindar onwards in poetry and prose by the side of ἀνᾱλόω (e.g. ἀναλοῦν C. I. A. I. 55, 3).

6) *ἀπαφ-ί-σκω only λ 217, ἐξαπαφίσκων Hes. Th. 537 (v. l. ἐξαπατίσκων). The aorist-forms occur pretty often in poets.

7) *ἀραρ-ί-σκω only ξ 23 αὐτὸς δ' ἀμφὶ πόδεσσι ἑοῖς ἀράρισκε πέδιλα, and in imitation of this passage Theocr. 25, 103.

8) ἀρ-έ-σκω, from Herodotus onwards in poetry and prose; Homer 284 has only the aorist-forms in a somewhat different meaning.

9) (ἐπ)-αὐρ-ί-σκω. τοῦ δέ τε πολλοὶ ἐπαυρίσκοντ' ἄνθρωποι N 733. The active occurs in Theogn. 111 in a causative sense οἱ δ' ἀγαθοὶ τὸ μέγιστον ἐπαυρίσκουσι παθόντες, and thus Bergk's scruples about this passage fall to the ground. By-form ἐπαυρέω Hes. Opp. 419.

10) (ἐκ)-γαμ-ί-σκω N. T., a by-form of ἐκγαμίζω.

11) γεγων-ί-σκω in the tragedians and Thucydides, so that it is a posthumous present to the Homeric perf. γέγωνε, plupf. ἐγεγώνει. By-form γεγωνέω.[3]

12) εὑρ-ί-σκω. Of the present-forms, which occur everywhere from Pindar onwards, εὑρίσκω only occurs in Homer, and that but once (τ 158), while εὗρε is of frequent occurrence.

13) κορ-έ-σκω, a late present to ἐκόρεσα, ἐκορέσσατο etc., attested by passages from Nicander e.g. Alexiph. 415. Cp. κορέννυμι. κορέσκων seems also to have been used in the sense of ἐξυβρίζων (Hesych. s. v. κορέων). In Hippocrates περὶ ἀδένων p. 271, 31 of the Geneva edition there is κορίσκονται πολλῆς ὑγρασίης in the sense of *abundant*.

14) κυ-ί-σκω, a by-form of κύω, κυέω attested from Hippocrates. The middle occurs in Herodotus (ii. 93) and Plato.[4]

15) ὀφλ-ί-σκω, only mentioned by Suidas as an alternative for the Attic ὀφλισκάνω.

16) ῥυ-ί-σκο-μαι, only found in Heliodorus and Eustathius in the sense of ῥέω. ἐρυΐσκετο· ἔρρεεν, ἐχεῖτο Hesych.

17) στερ-ί-σκω, Soph. O. C. 376 ἀποστερίσκει, Thuc. ii. 43, the middle rather more common with the older Attic writers, by the side of στέρομαι.

18) τελέσκω complete, only Nicander fr. 74, 10 τελέσκων, cp. O. Schneider Nicandrea p. 96, while others write τελίσκων. The form with
285 an ι is given by Hesych. τελισκόμενος· πληρούμενος, τελειούμενος. It does not occur before the Christian period, though Herodian i. 436 gives the active.

18 b) τιεσκομένοι C. I. 3538, in a metrical oracle 12 (cp. Nauck Mélanges iv. 36).

19) χλοιδ-έ-σκω, only in Hesych. in the gloss χλοιδέσκουσαι· γαστρίζουσαι i.e. filling the belly, fattening, so that it is a by-form to χλοιδᾶν· διέλκεσθαι καὶ τρυφᾶν, the perfect to which is κέχλοιδε· διέλκετο.

20) χρη-ί-σκο-μαι, only Hdt. iii. 17: χρη-ί-σκονται (M.SS. χρηΐσκοντο) τῷ ὕδατι, by-form to χράομαι in an iterative sense.

V. -σκω, -σκο-μαι added immediately to Consonantal Roots.

1) *δι-δά-σκω, which only belongs here on the assumption that the rt. δαχ (probably from δακ, and so=Zd. *dakh-sh* teach, Lat. *dic* in *di-sco*, *di-dic-i*, *doc* in *doc-eo*) is at the bottom of the whole verb, and consequently that the present-form which was common to all Greek from Homer onwards came from *δι-δαχ-σκω or *δι-δακ-σκω and not directly from the rt. δα (δέ-δα-εν, ἐ-δάη-ν). Cp. Princ. i. 284, Fick i.[3] 611. We met with a corresponding fluctuation between a vocalic root and one which had been expanded by a guttural in the case of ἀλύσκω (iii. 4) and ἰλάσκομαι (iii. 11). The fact that forms like ἐδίδαξε, δεδίδαγμαι are as old

[3] Nauck discusses this verb in detail, *Mélanges* iv. 41 ff. He denies the existence of a perfect γέγωνα, and prefers to call γέγωνε an aorist. But the ω does not suit this view (cp. Ch. XIII. ii.).

[4] μάχεσκω is only mentioned by Herodian i. 436. The alphabetical arrangement at the place is faulty, and so it is quite possible that this form has usurped the place of another.

as Homer goes to prove that διδαχ was in quite early times recognised as the stem.

2) *δει-δί-σκο-μαι or δε-δί-σκο-μαι γ 41 δειδισκόμενος (ο 150 δεδισκόμενος) δὲ προςηύδα, σ 121 δέπαϊ χρυσέῳ δειδίσκετο (cp. υ 197). The precisely identical use of δεικανόωντο and δεικνύμενος (cp. above, p. 183) undoubtedly entitles us to refer the word to the rt. δικ (δείκνυμι).

3) *ἐ-ΐ-σκω, ἴ-σκω (ἴσκων, ἴσκουσα) a causative present to ἔοικα, ἴκελος, almost confined to Homer (impf. ἤισκον, ἔϊσκον), so that the rt. is clearly ικ.—On the impf. ἴσκε he said (τ 203, χ 31) from the rt. σεκ (σεπ) the reader may be referred to Princ. ii. 68.

4) *ἰ-ά-σκ-ειν· ἄγειν Hesych. which Lobeck Rhem. 249 and M. Schmidt found obscure, but which may probably be very simply explained as an inchoative present from the rt. ἀγ. It stands then for ἰ-αγ-σκω. 286
We met with ἰ as a reduplication of ἀ in ἰ-αύ-ω. Cp. Princ. i. 484.

5) κλώ-σκω. Only κλώσκων· ἐπικλώθων Hesych., so that it is for κλωθ-σκω. On its origin cp. p. 157.

6) πινύ-σκω, a denominative, apparently, from πινυτό-ς, since it means just 'to make wise, prudent.' So Aesch. Pers. 830 πρὸς ταῦτ' ἐκεῖνον εὐφρονεῖν κεχρημένον πινύσκετ' εὐλόγοισι νουθετήμασιν, and the aor. occurs at Ξ 249 ἤδη γάρ με καὶ ἄλλο τεὴ ἐπίνυσσεν ἐφετμή. Cp. Simon. C. fr. 12 Be.[3]

7) τι-τύ-σκο-μαι. Γ 80 ἰοῖσίν τε τιτυσκόμενοι λάεσσί τ' ἔβαλλον, τιτύσκετο Θ 41, N 23, also used in the sense of τεύχειν. The active is used by late poets in the latter sense. Other inchoative forms from an equivalent of this stem are ἀποθύσκειν (M.S. ἀποθύκειν)· ἀποτυγχάνειν, ἐνθύσκει· ἐντυγχάνει, with a remarkable shifting of the aspiration, which was lost before the σκ, to the initial, τετύσκων· ἐμφανίζων, τετύσκετο· κατεσκευάζετο, all in Hesych.

8) χά-σκω found from Solon onwards (fr. 13, 36 Be.[3]), apparently for χαν-σκω, cp. χαίνω, aor. ἔ-χαν-ο-ν, pf. κέχηνα, while the Lat. *hi-sco* shows no nasal.

ἀμφίσκοντες· ἐνδυόμενοι (cp. ἐπαμφίσκω), which might at first sight be taken for an inchoative of the rt. ϝες, so strongly resembles the form ἀμπίσχω (more commonly ἀμπισχνέομαι) that we may certainly follow Steph. Thes. in regarding it as merely a by-form of the latter. ἀμφίσκω: *ἀμφίσχω :: σώθητι : *σώθηθι. We have thus in this form a second instance of the progressive dissimilation in the case of neighbouring aspirated syllables.

VI. A TRANSFORMED -σκω.

1) δύ-σγω· ἀποδύω Hesych. The γ, as in μίσγω, has arisen from κ. Cp. διδύσκω above, p. 193, and μίσγω.

2) ἔρ-χο-μαι common to all Greek from Homer onwards (N 256). Cp. Princ. ii. 366.

3) μί-σγω used extensively from Homer onwards both in the active and the middle. The Lat. *mis-c-eo* shows most clearly that the γ has been weakened from κ. This is confirmed by the Skt. *mik-sh*, *mi-mik-sh* (Princ. i. 417), from which it might almost be inferred that the course of the expansion was as follows: *mik* (Skt. *miç-rá-s* mixed), *mik-s* (Skt. 287
mik-sh), *mik-sk* (Lat. *misc-eo*). A glance at δύσγω is enough to teach us that we ought not to explain the γ of μίσγω in the way taken by Ahrens,

who at Formenl. p.123 says that 'the remarkable γ has been brought about by the transformation of the κ.' It would hardly be possible to find an analogy for such a softening influence. It may even be asked whether the original *ksk* had not already been softened to *sk* before the softening of the κ between vowels in forms like *ἐμίγην*, *μιγάς* etc., so that from the primary **mik-skâ-mi* would have come even in Greek a **μισκω*. It would not in itself be improbable that the softening of the simple *k* to γ in forms like *ἐμίγην* should by the force of analogy have had something to do with the softening of the *sk*. Joh. Schmidt however (Vocal. i. 123) makes the very plausible conjecture that the well-attested natural length of the vowel in *μίσγω*, *μῖξαι*, *μῖκτο* is due to the after-effects of a nasal, so that we should have to assume a primary form *μιγγ-σκω*, in which the first γ would have arisen from the syllable *νν* in *μίγνυμι*. For the softened *δύσγω* too there occurs a nasal formation in *δύνω* (cp. above, p. 178). So it may be that its primary form was **δυν-σκω*, and that the nasal was in both cases the real source of the softening.

4) *πά-σχω* common to all Greek (*ἄλγεα πάσχει* Υ 297). Cp. Princ. ii. 365 f., where objection is taken to the wide-spread assumption that the loss of a θ is the cause of the aspiration. The comparison of the Lat. *pa-ti-o-r* and of *πέν-ο-μαι*, *πόνο-ς* points conclusively to the assumption that the root-syllable was *πα* (apparently for *σπα*, cp. *σπά-νι-ς* and Princ. ii. 356). *ἔ-πα-θο-ν*, and *πέ-πον-θα* are expanded by a θ. The Sicilian perfect *πέποσχα* (Ahrens, Dor. 351) has been formed in striking analogy to the present. The different view of this verb taken by Joh. Schmidt (Voc. i. 93) fails to convince me. Synonymic differences such as have arisen not only between *πένεσθαι*, *πόνος* on one side and *πάσχειν*, *παθεῖν* on the other, but also between *πάθος* and the undoubtedly related *πένθος* (mourning) ought not to induce us to separate the stems *πεν* and *παθ*. In *πεν-ι-χ-ρό-ς* (γ 348), *πέν-η-ς*, *πεν-ίη* (ξ 157) we have a modification of meaning in the case of *πεν* precisely similar to that which has prevailed in *παθεῖν* and *πάσχειν*. Still less am I inclined to separate
288 the Lat. *pa-ti-o-r*, which in the wide ramifications of its meaning is completely equivalent to *παθεῖν*, and *πῆ-μα* (*πήματα πάσχειν*) from the form of the stem which ends in θ. *pa-ti-o-r* comes from the rt. *pa*, as *po-ti-or* from *po* (cp. *fa-te-o-r*).

Besides these I have at Princ. ii. 365 f. tried to make good the assertion that the following 8 verbs, whose stem ends in χ even outside the present tense, owe this consonant to a softening from σκ.

γλίχομαι in Herodotus, Aristophanes, and Demosthenes. Forms belonging to other stems than the present are of quite isolated occurrence, e.g. *ἐγλιξάμην* Plato Com. ii. 695 Mein. *γλίσχρο-ς* (Princ. i. 458) perhaps contains the sibilant which we assume to have existed before χ, while *γλί-α*, *γλοι-ό-ς* seem to give the root.

εὔχομαι, common to all Greek from Homer onwards, accompanied by a plentiful noun-formation: *εὐχή*, *εὐχωλή*, *εὐχετάασθαι* and forms like *εὔξομαι* (Soph.), *εὖκτο* (above, p. 131), *ηὔξατο* (Pind. Aesch.). The Skt. *vāñkha-ti* he wishes, desires (for *van-ska-ti*) thoroughly corresponds to the meaning wish, as does *vāñkhā* wish to *εὐχή* and the O.H.G. *wunsc*. Both words are derived in the Pet. Dict. from *van* wish for.[5] *εὐ=va*

[5] Roth (*Ztschr.* xix. 220) however connects the stem *εὐχ* with the Skt. *vāgh-át*, the offering, presenting one, making *vagh* the rt. So too Fick[3] i. 765.

may be plainly seen in *εὐρύ-ς* from **varu-s* (Skt. *uru-s* Princ. i. 431), and in *εὖνι-ς* bereft=Skt. *vānjā*, *ūnā* (Bugge Stud. iv. 328).

νήχω Homeric (*νηχέμεναι* ε 375), also *νήξομαι* ε 364.

σμήχω ζ 226 *ἔσμηχον* by the side of *σμάω* in Hdt. and Aristoph., *νεύ-σμηκ-το-ς* N 342, *διασμηχθείς* Aristoph.

στεν-ά-χω Π 391 and elsewhere by the side of *στένε* K 16. Here there are no forms with a *ξ*. The iterative *στενάχεσκε* T 132 is no objection to the view that *χ* stands for an earlier *σκ*, as is shown by *βοσκέσκοντο*.

τρύχω. *τρυχόμενος* α 288, cp. *τερύ-σκω* above, p. 195. Still as early as ρ 387 there is *τρύξω*.

ψήχω by the side of *ψάω*, post-Homeric. *ψῇ* Soph. Tr. 678 by the side of *ἔψηκται* ib. 698.

ψύχω ἀνέψυχον N 84, *ψύξασα* Υ 440; *ψυχή*, *ψυχρός*, *ψῦχος* also show the *χ*, and it is only *φῡ-σάω* and the other forms put with it at Princ. ii. 117 which are to be referred to a vocalic stem.

If this conjecture is correct there is no other explanation left for the 289
ξ except that either, as we assumed in the case of *ἀλύξω*, *ἰλήκησι*, *διδάξω*, they are to be referred to stems which have been expanded by *κ*, or, and this seems to me the simpler view, that the *ξ* made its way into the future and aorist on the analogy of *ἐλέξατο* by the side of *λέχος*, *ἐλέγξω* by the side of *ἐλέγχω*, *ἐδέξατο* by the side of *δέχομαι* etc.

The sum total then of the inchoative verbs in Greek is made up as follows: in the first division there are 13, in the second 6, in the third 16, in the fourth 21, in the fifth 8, in the sixth 12, that would be in all 76. Since however *τερύσκω* in iii. was originally identical with *τρύχω* in vi., and *ἀλθήσκω* (iii. 3) with *ἀλθίσκω* (iv. 1) we must subtract two from this number, and this gives us a total of 74, not quite half the number, that is, of the verbs of the nasal class. It must be remarked moreover that very many of these presents do not occur till late, and that not a few, though given in our grammars as the regular forms, are of quite isolated occurrence. This is especially the case with *δεδίσκομαι* (i. 4), *διδύσκω* (i. 6), *θράσκω* (i. 7), *κατ-ε-κίκλασκε* (i. 7b), *πιπίσκω* (i. 9), *πιπράσκω* (i. 10), *βλώσκω* (ii. 1), *βιβρώσκω* (ii. 2), *ῥήσκομαι* (ii. 8), *ἀάσκω* (iii. 1), *ἀέσκοντο* (iii. 2), *ἀλθήσκω* (iii. 3), *ἀλύσκω* (iii. 4), *γανύσκομαι* (iii. 6), *ἠλάσκω* (iii. 10), *πωτάσκεται* (iii. 13), *σελάσκω* (iii. 14), *τερύσκω* (iii. 15), *τρωπάσκω* (iii. 16), *τιεσκόμενοι* (iii. 18b), *ἀμβλακίσκω* (iv. 3), *ἀπαφίσκω* (iv. 6), *ἀραρίσκω* (iv. 7), *ἐκγαμίσκω* (iv. 10), *κορέσκω* (iv. 13), *ῥυΐσκομαι* (iv. 16), *τελέσκω* (iv. 18), *χλοιδέσκω* (iv. 19), *χρηΐσκομαι* (iv. 20), *ἰάσκω* (v. 4), *κλώσκω* (v. 5), *δύσγω* (vi. 1). After the subtraction of these 32 rare forms there remain about 40 verbs in which this present-formation was actually in constant use.

Finally, as regards the meaning of this present-expansion, if it had not been for the abundantly attested inchoative meaning in Latin verbs like *adolescere*, *reviviscere*, *pubescere*, *senescere*, *clarescere* etc., it would perhaps hardly have occurred to anyone to ascribe even partially the expression of the same notion to the Greek verbs of like formation. As a fact out of the 74 present-forms of this class only 5, i.e. the Herodotean *διαφώσκειν* (*illucescere*), *ἀναβιώσκομαι* (*revivisco*), *γενειάσκω*, *γηράσκω* (*senesco*), *ἡβάσκω* (*pubesco*) have an unmistakably inchoative 290
meaning. When once awake to this fact we shall perhaps go on to admit that the action also in *γιγνώσκω* (*gnosco*), *μιμνήσκω* (*reminiscor*),

διδάσκω, τιτύσκομαι, and possibly in βάσκω, κυΐσκω and κικλήσκω is represented as gradually arriving at completion. A number of these verbs have in the present stem, and that partly in contrast to the rest of the verb, a decidedly causative meaning. This is specially the case with ἐπιβάσκω, δεδίσκομαι make frightened, πιπίσκω, μεθύσκω, ἐκγαμίσκω, εἴσκω, πινύσκω. ἀναβιώσκομαι is used sometimes in a simply inchoative, sometimes in a causative sense. That the inchoative meaning veered straight round to the causative we are hardly entitled to assume. It was rather that the operation expressed by some of these verbs was from the first a gradual operation. Gradual upspringing and gradual operation met in the same form, and this is by no means the only case where one and the same form is made the vehicle for an intransitive and a causative meaning. Later on usage, as it often did also in the case of intransitive inchoative forms, allowed the notion of gradualness to fall away, and so nothing but the causative meaning was left. For βάσκειν e.g. we suppose the primary meaning to have been 'to get gradually into motion,' and to this was added the causative 'to set gradually in motion,' and hence for the compound with ἐπί 'to bring gradually nearer to something.' The distinction between that which comes about and that which is brought about formed, to begin with, no more of a special expression here than, say, in στή-σω, ἔ-στη-σα, ἔβη-σα, as contrasted with ἔ-στη-ν, ἔ-βη-ν, or in verbs like ἐλαύνειν, ἄγειν. After this contrast between ἐπιβάσκω and ἐπιβαίνω, ἐπιβῆναι etc. had been once developed, the special expression of gradualness which had really been the primary meaning of the form, fell quite into abeyance, and ἐπιβάσκω in this way came to be a purely causative verb. Thus viewed these very causatives are also witnesses to a period in which the σκ was a present-expansion with a definite meaning. The vulgar dialect of Rome, as Löwe (Prodromus corp. glossar. 362) points out, shows the same change of meaning in e.g. *ferascit* ferum facit, *pravescere* depravare. In the case of the great majority of the verbs of this class it must be admitted, it is true, that all recollection of this early state of things had as entirely disappeared as in the case of the Latin verbs *nancisci*, *pacisci*,
291 *ulcisci*, *proficisci*, *pascere*. Among the Sanskrit forms which we recognised above as belonging here in form, at least two have an unmistakably inchoative meaning, i.e. *uKKhá-ti* illucescit and *mṝrkha-ti* it curdles, grows firm, stiff. We may see in this a remarkable trace of an inchoative meaning in the syllable *skạ* (*kha*), a meaning originally existing, we may assume, in the Indian languages as well.

CHAPTER XI.

THE I-CLASS.

THERE is probably no discovery made by Comparative Philology which has contributed so much towards a clear understanding of the structure of the Greek verb as the discovery of the *i*-class. Buttmann, who so often showed a deeper insight than his contemporaries, got no further than the perception, expressed under the head of 'double themes' (Ausf. Gr. i.^{2} 367) with reference to presents like *φαίνω, βάλλω, τάσσω, φράζω*, that 'in a large number of verbs the stem of the word' appears 'in the present in a longer, fuller form, produced sometimes by a long vowel or diphthong, sometimes by the addition or the variation of consonants.' Least of all was this a satisfactory account of the presents in *-σσω* and *-ζω*, as in fact the 'variation of the consonants' was left quite incomprehensible. It was not for a moment suspected that it might be possible to explain the four verbs selected above as examples, and those like them, on a single principle, notwithstanding that it would have been possible to arrive at the truth merely from a close examination of Latin verbs in *-io* in connexion with the alterations manifest in the comparatives in *-ιων*, without any aid from Sanskrit. Bopp Vgl. Gr. i.^{2} 211 acknowledges that it was the analysis of the Greek comparatives which first led him to discern the connexion between Greek verbs in *-σσω* and *-λλω* and the Sanskrit verbs of the 292
fourth class (1st sing. *-jā-mi*), and this is why, in my 'Tempora und Modi,' I devoted such a considerable space,—and the condition of the science at the time made this quite necessary—to the parallelism between the formation of the comparative and that of the present.

Since that time the analogies from Greek have by Bopp himself, by Schleicher and others, been placed in so clear a light that no doubt on the main points is any longer possible. Controversies exist only on a few side questions and single points, and on the origin of the whole class. In respect to these questions I will deal only with such ground as has not been already covered by me in my 'Principles of Greek Etymology.' Our main task here is to demonstrate the original unity of the whole mass of the present-formations, apparently so diverse, which belong to this class. Such a result can be welcomed even by one who still feels some doubts as to the origin of the whole phenomenon.

It is a settled fact that the primitive Indo-Germanic language distinguished a large number of present-stems from the verb-stem by affixing the syllable *ja*. As *j* and *i* are constantly interchanged before vowels, we may expect at starting to find *ia* as well as *ja* in the various individual languages, and to find both forms of this one element represented by such substitutes as the phonetic laws of the single languages would lead us to expect. *ja* can be clearly seen in 4 families, in Sanskrit, where

the class of verbs characterised by *ja* is given as the 4th, in Zend, in Slavonic, and in Gothic:

Skt.	*kup*	pres.	*kup-já-mi*	I become agitated.
Zd.	*verez*	„	*verez-yâ-mi*	I do.
Ch.-Sl.	*zna*	„	*zna-ją*	I know.
Goth.	*haf*	„	*haf-ja*	I heave.

ia appears in the Latin verbs of the so-called third conjugation in *-io*:

fug *fug-io.*

In Lithuanian we have the same interchange between *ja* and *ia* which we shall presently see to have taken place in Greek. The *ia* occurs in

293 rt. *ar* pres. *ar-iù* I plough,

the *ja* both in derivative verbs e.g. *laidó-ju* I bury, and in primary verbs with the phonetic change of *j* to *ž*, which is pronounced like the French *j*:

rt. *sêd* pres. *sĕd-žu* I sit.

We are accordingly entitled to expect to find the forms in *-jā-mi* represented in Greek sometimes by a vocalic *-ιω*, or perhaps (but of that later) *-εω*, sometimes by the old *-jω* and all the transformations to which such a syllable would by Greek phonetic laws have been liable. We derive the most material assistance here from the analogy of the comparative, the suffix of which is to be referred to the primary form *-jans*. Compare:

st.	ἡδυ	compar.	ἡδ-ίων	and rt.	(σϝ)ιδ	pres.	ἰδ-ίω.
„	πλε	„	πλε-ίων	„	„ δα	„	δα-ίω.
„	μαλ	„	μᾶλλον	„	„ βαλ	„	βάλλω.
„	ἀμεν	„	ἀμείνων	„	„ τεν	„	τείνω.
„	χερ	„	χείρων	„	„ τερ	„	τείρω.
„	ἠκ	„	ἧσσων	„	„ λευκ	„	λεύσσω.
„	ἐλαχυ	„	ἐλάσσων	„	„ ταραχ	„	ταράσσω.
„	κρατυ	„	κρείσσων	„	„ λιτ	„	λίσσομαι.
„	βαθυ	„	βάσσων	„	„ κορυθ	„	κορύσσω.
„	ὀλιγο	„	(ὑπ)ολιζων[1]	„	„ τριγ	„	τρίζω.

It is only for the change from *ξj* to *ζ* which we have to assume for *ἔζομαι*, *ἵζω* that we have no analogy among the comparatives, though this lack is fully compensated for by parallels in other directions e.g. *ἀργυρό-πεζα*, compared with the feminine of the Lat. *acu-pediu-s* (Princ. i. 161), Lesb. *ζά*=ordinary Greek *διά*.

The Sanskrit 4th class of verbs is one of great extent. According to Bopp it contains 130 verbs, to which have to be added a few roots in *ā*, which are classed by the Indian grammarians as roots in *ē* and *ō*. Boehtlingk in a note to his Sanskritchrestomathie p. 279 was the first to bring this last fact to light. Consequently e.g. the rt. *dhā* suckle, pres. *dha-jā-mi*, rt. *çā* sharpen, pres. *ç-jā-mi* belong to this class. This makes the total a still larger one. The Skt. *mēd-jā-mi*, from the rt. *mid* get fat, is the one solitary instance in that language of intensification of the

[1] On the newly found Attic form *ὀλείζων* (C. I. A. 1 B, 33 etc.) cf. Cauer *Stud.* viii. 254.

root-vowel combined with the addition of the syllable *ja*, as in the Latin *mêjo* for *meig-io* from the rt. *mig*, and in the Gk. πλήσσω rt. πλαγ. In Zend there are, according to Justi, not so very many of these verbs to be found. From Old-Persian Spiegel (Altpers. Keilinschr. p. 166) knows of only a single instance. In Latin there are the following 15 verbs which belong directly here: *cap-io, cup-io, fac-io, fod-io, fug-io, grad-io-r, jac-io, lac-io, mor-io-r, quat-io, par-io, pat-io-r, rap-io, sap-io, spec-io.* But there are some more to be added; for, as Struve (üb. d. lat. Declination und Conjugation p. 199) has well shown, the boundary line between these verbs of the so-called 3rd conjugation and those of the 4th which, like *farc-io, fulc-io, or-io-r, sal-io,* are saddled with an *i* only in the present-stem, is not very clearly drawn. In the very earliest Latin there appear forms like *parīre=parere, morīri=mori, cupīre, desipīre* and the like. It was only in the course of time that the fashion became established of regularly expelling the *i* of the stem in certain verbs before a short *er*, and keeping it everywhere in the form of a contraction in others. The difference between the two sets of verbs is not enough to constitute a difference of conjugation; we ought rather to place all verbs whose *i* is movable (as contrasted with that of *audio, audīvi* etc.) in this class. And even in cases where the *i* goes right through all forms, e.g. in *mug-io*, we are no more excluded from the supposition that it may in the beginning have been a present-expansion, than we are in the case of the nasal of *jungo* and other formations of that class. The class-characteristic is not so evident at first sight in *ājo, nējo*, which no one who looks at *mâjor=mag-ior* can doubt to have originated in *ag-io, neig-io.* 294

Gothic has only 8 verbs in which the syllable *ja* characterises the present-stem as such: *bid-jan* beg, *frath-jan* understand, *haf-jan* heave, *hlah-jan* laugh, *rath-jan* count, *skath-jan* injure, *skap-jan* shape, make, and *vahs-jan* wax, grow (Leo Meyer Goth. Sprache p. 350). Here as in so many other cases Greek surpasses most of the other languages in the abundance of the forms preserved, though all kinds of transformations have so modified the original formation that it is almost undistinguishable.

The cases in which the formative syllable *ja* can be shown to have been affixed to the same stem in more than one Indo-Germanic family of languages are the following 20:

	ἄλλομαι	Lat.	*sal-io.*	295
	ἀσπαίρω	Lith.	*spir-iù* (inf. *spìr-ti* Princ. i. 358).	
	δαίω divide	Skt.	*d-jā-mi* (cut).	
	δείρω	Lith.	*dir-iù* (flay).	
	ἕζομαι	Lith.	*sĕd-žu.*	
	θυίω	Lat.	*sub-fio.*	
	ἰδίω	Skt.	*svíd-jā-mi.*	
Lat.	*cap-io*	Goth.	*haf-ja.*	
Skt.	*kúp-jā-mi*	Lat.	*cup-io.*	
	κλώσσω	Lat.	*gloc-io.*	
	λεύσσω	Lith.	*lúuk-iu* (Princ. i. 196).	
Skt.	*mán-ja-tê*	Zd.	*main-yê-tê* (he thinks) (cp. the Gk. μαίνεται Princ. i. 387).	
	μύλλω	Ch.-Sl.	*mel-jǫ* (I grind).	
	ὄζω	Lith.	*ŭd-žu* (smell).	
	πτίσσω	Old-Lat.	*pins-io.*	

	ῥέζω, ἔρδω	Zd.	*verez-yâ-mi.*	
	ῥύζω	Lat.	*rug-io.*	
Skt.	(*s*)*páç-jā-mi*	Zd.	*çpaç-yâ*	Lat. *spec-io.*
Zd.	*ukhsh-ya-nt* (part.)	Goth.	*vahs-ja.*	
	φράσσω	Lat.	*farc-io.*	

Besides these there are a few more instances, some of which are doubtful, while others are of an exceptional character. The Gk. σφάλλω, for instance, and the Lat. *fallo* can only be compared on the assumption that *lj* sometimes turns to *ll* in Latin also. μύζειν groan can be compared with *mug-î-re* if the *g* of the latter is not a weakened *k* as might be inferred from μυκάο-μαι. Undoubtedly the Lat. *mor-io-r* is to be compared with the Skt. *mri-já-tē* he dies=Zd. (*fra*)*-mair-yei-tê* and the Old-Pers. *a-mar-iya-tâ* he died (Joh. Schmidt Voc. 244). But the syllable *ja* has in the Sanskrit word the force of the mark of the passive voice. βαίνω, as we remarked on p. 185, is of the same formation as the Lat. *ven-io*, but in Latin, as in Oscan and Umbrian (3rd sing. fut. ex. *ben-ust*) the nasal sticks fast to the verb-stem all through, while in the Greek verb it appears only in the present. From a Greek point of view then βαίνω is one of the verbs in which the nasal class and the *i*-class are united, but *ven-io* belongs exclusively to the *i*-class. In
296 the cases of τρείω by the side of τρέω, and παίω=*pav-io* conjectural comparisons will be given below.

Having thus set the antiquity of this class of verbs in the right light we have now to consider what was the origin of the syllable *ja*. On this point there are practically only two views to choose from. Either the syllable *-ja* is just as much a noun-suffix as, according to the view argued out on pp. 108 f. and 164, are the syllables *-na*, *-nu*, and *-ta*, which constitute the marks of the nasal class and the *t*-class, or else we have to deal with quite another sort of formation, i.e. a compound; in other words, that is, the syllable *ja* is of verbal origin and identical with the verbal root *ja*, Skt. *jā*. Each of these two views has redoubtable names on its side. Schleicher avows the former (Comp.[3] 753), and the latter was first stated by Bopp (Vgl. Gr. ii.[2] 357), and adopted, among others, by Benfey and Max Müller. I have myself repeatedly (especially in my Erläuterungen[3] 103, in my 'Zur Chronologie'[2] 57, and in the Introduction to this book p. 12) declared for the second of these views.[2]

On the side of the former view may be urged the analogy of the above-mentioned suffixes. The suffix *-ja* moreover is of very frequent occurrence in verbal adjectives, it is used in Sanskrit in the formation of gerundival adjectives like *jaǰ-ja-s* (rt. *jaǰ*) venerandus=Gk. ἄγ-ιο-ς, though no definitely established meaning was uniformly attached to it. For instance *paḱ-ja-s* from the rt. *paḱ* cook means ripening, and the corresponding Zend form likewise. Emphasis might even be laid on the fact that in Sanskrit the suffixes *an* and *ja* are found united in the later fuller gerundive termination *-an-ja*, *-an-īja*, and that in the verb likewise

[2] Since the above was written an attempt has been made in Bezzenberger's *Beiträge* i. 120 ff. by Fick and Führer, to show that the 'so-called ja-suffix' was from the first an element inherent in the verb. I confess I see no reason for this view, and it seems to me that no proper regard has been paid, in making the lists there given, to the period at which the several words occur. I fail to see that, e.g. the altogether late βηχία, hoarseness, can be of any use at all in explaining βήσσω or *vice versa*.

both elements occur not seldom in conjunction, whence comes e.g. the Skt. *bhur-an-já-mi* I start, and the Gk. *ὐφ-αίνω* i.e. *ὐφ-αν-jω* from the rt. *ὐφ*=the Skt. *vap* (cp. above pp. 177, 185). Single instances in which to 297
actually occurring adjectives in *-ja* we can find actual present-stems corresponding in sound and meaning seem not to be altogether wanting. For instance in Justi's Zendwörterbuch the adj. *verez-ya* (rt. *varez*=Gk. *ϝεργ*) meaning effectual, and the pres. *verez-yâ-mi* I do, i.e. I am effectual, occur side by side. Elsewhere, it is true, the meaning of the verb does not square so well with that of the adjective. For instance, *ἄζομαι*= *ἀγ-jo-μαι* I dread does not fit in with either *ἄγ-ω-ς* or *jaǧ-ja-s*, nor the passive or intransitive meaning of the Skt. *mri-já-tē* he dies and the Lat. *mor-i-tur* with the Zend *mair-ya* destructive, deadly, and there is no very close connexion in meaning between *πλάγ-ιο-ς* knocked out of shape, and hence crooked, and *πλήσσειν* i.e. *πληκ-jειν*. It must be admitted that in the case even of those present-stem formations which we have seen good reason to regard as of nominal origin, the development of meaning in the forms which at a later time were used only nominally, took quite a different course from that in the present-stems, and indeed all such introductions of nominal-stems with their various suffixes into the structure of the verbal system must have belonged to such a very early period that all consciousness of any connexion between the nominal and verbal form must very soon have disappeared.

All the same the preponderance of probability is on the side of Bopp's view. The element *ja* evidently plays a more important part in the verbal structure than all those other syllables— *-na*, *-nu*, *-ta*, or *-ska*—of which, as component parts of the present-stem, we thought the origin was to be traced to nominal suffixes. The syllable *-ja*, with the accent on it, and as a rule in connexion with middle terminations, does duty in Sanskrit as the mark of the passive, as does the syllable *-ya* in Zend and Old-Persian, where it is not uncommonly joined with active personal terminations as well (Spiegel Altpersisch p. 169). Accordingly the majority of the Sanskrit verbs of the 4th class with which we are here concerned have also an intransitive meaning. Max Müller (Skt. Gr. p. 188) is of the opinion that there are traces which show that the verbs of the 4th class were originally accented in the same way as passive verbs. Further the syllable *ja* appears as an essential part of the suffix *-aja* by means of which derivative, and, more particularly, decidedly denominative verbs are formed in Sanskrit and Iranian, 298
and which has become the source of the manifold denominative formations of all the related languages. We shall come back later on to what I hold to be the unmistakable fact that this *-aja* is nothing else than an *a* which is the final letter of a noun-stem, and this very *ja* which is used to form the present. The syllable *ja*—in the form now of *jā* and now of *i*—is also the modal characteristic of the optative, and is to be seen again in the future as the second element of the suffix *-sja* (Skt. *dā-s-jā-mi*=Dor. *δω-σ-ίω*). It might be urged against this that we have here to deal with elements which, though alike in sound, are of totally different origin. But there is a probability from the meaning too that the *ja* in the optative is the same as that in the future. And since in the future all rightly agree in referring the first element in the suffix to a verbal root, i.e. *as*, there is a special probability here that the second is not a mere nominal suffix but a verbal stem. It is not to be

denied of course that suffixes which occur elsewhere as nominal suffixes occasionally perform other functions. For instance the suffix *-na* gets that of expressing the passive in Gothic. But where is a nominal suffix to be found with such manifold ramifications of meaning as this *-ja*? Are we to imagine that in the structure of the verb such essential categories as passivity, modality, and the designation of the future, as good as came out of nothing at all, or, in other words arose from the chance difference in the application of a nominal suffix which has in itself no meaning, or at least none to distinguish it essentially from other nominal suffixes? This seems to me an impossibility, and I believe that Schleicher himself would hardly have maintained the pronominal origin of the syllable *ja* if he had not, with the rigid exclusiveness of attention which was peculiar to him purposely refused consideration to many of the abstruser questions about 'function.' And yet it is only by the conscientious and combined consideration of both sound and meaning that a satisfactory solution can be reached of the problems set us by the Science of Language.

If we proceed to ask what is the way which modern languages have taken, in periods that are more open to our observation, to express categories like passivity, modality and futurity there is no doubt about the answer. It is by the application of auxiliary verbs which, in
299 virtue of the meanings which had been already determined in their independent use, carried in themselves the germ of the expression of these relations. It was these clear analogies which Bopp had in view when at the very outset of his vast labours he conjectured that auxiliary verbs had been made use of in earlier periods of linguistic history. And seeing that Bopp's explanation of the sibilant in the verbal structure as being the rt. *as* is as good as universally accepted, and that of the *dh* (Gr. *θ*) as being the rt. *dha* place, do, is pretty generally adopted, we shall be justified in inclining to his derivation of the syllable *-ja* from the rt. *ja* (Skt. *jâ*) go. The idea of going contains in itself, as is shown by W. von Humboldt (Ueber die Verschiedenheit des menschlichen Sprachbaues, p. 257 ff.), and as we have already pointed out on p 12, the germs of the most various meanings. To begin with, going is a continuous action, and as such is adapted to be used in the stem of the durative present-tense. Take for instances such phrases as the Germ. *schwanger gehen* 'to go with young,' 'to go walking,' 'to go begging,' ('to go shares.') or the Latin *exsequias ire*. Then going is intransitive and, where it means not the striving after an object but the getting into a state, it can give rise to a passive meaning, as for instance in the German *verloren gehen* 'to get lost,' and *feil gehen* 'to go for sale,' and in the Lat. *vênum ire*. Bopp (Vgl. Gr. iii. § 739) mentions that in Bengalee *Korâ yâï*, properly 'I go making,' means 'I get made.' The same verb again can take us further to the notion of striving. How far it is possible that we may derive hence the explanation of the modal use of the syllable *ja* in the optative will be discussed when we come to deal with this mood. The force of a future is clearly possessed by the verb *ire* in *dejectum ire*, *amatum iri*, with which, besides the analogies from French mentioned on p. 12, we may compare the German *baden gehen* 'to go to bathe' (and the English 'I am going to do it'). It is easily conceivable, if this view be taken, that the force of this affixed verbal root should in many cases become considerably weakened, and

should even be entirely lost sight of, and that consequently, after all suspicion of the origin of the syllable in question had vanished from the consciousness of the speaker, it might degenerate into a purely formal constructive element and be used in transitive or even causative verbs. We may even find it possible on a more detailed investigation to imagine many ways in which the transference of use might have taken place. The apparent absence of meaning in the syllable which we are obliged 300
to acknowledge in many cases is not enough to outweigh its significance in many others. This absence of meaning is in accordance with the general tendency of language—just as in the case of the inchoatives we saw a meaning which at first had been a specific one preserved in but a small circle of verbs—while the significance which it possesses in the future and the optative could hardly be explained without the help of Bopp's assumption. Max Müller is so thoroughly convinced of the origin of our syllable *ja* from the root of the verb to go that in his essay 'On the Stratification of Language' p. 31 he actually refers the primary nominal suffix *-ja*, fem. *-jā*, to this root. In this way then the second of the two possible explanations would coincide to a certain extent with the first. However, I admit that I still feel considerable doubts as to the soundness of the latter explanation (cp. the note on p. 204 above).

With respect to the Greek representatives of the *i*-class, which we have now to review in their several ramifications, it is certain that there cannot be said to be any special modification of meaning in the present-stem as opposed to the verb-stem, even to the limited extent in which this could be maintained with respect to the inchoative class.

The Greek *i*-class falls into two main divisions, according as the vowel ι or the consonant *j* is the basis of the suffix. The first of these divisions is but poorly represented, the second branches out in the most various directions, and has therefore to be divided into several sub-classes.

I. PRESENTS IN -ιω.

Greek forms constructed like such Latin presents as *cap-io*, *fod-io* are rare. Such as there are fall into two subdivisions:

A) where -ιω has been preserved pure,

B) where -ιω has coalesced with other vowels to form diphthongs.

A)

ἐσ-θ-ίω, which occurs from Homer onwards, with the (also Homeric) by-form ἔσ-θω and the unexpanded ἔδω, is the only present with a 301
movable ι. Since, however, the ι is here preceded by another stem-expansion, i.e. θ, we have evidently here what we have encountered so often before, e.g. in forms like ὀφλι-σκ-άνω, αἰσ-θ-άνο-μαι, the conjunction of two elements of stem-expansion. The stem without the ι is just as much a present-stem as that with the ι, so that properly speaking we cannot call this a present-forming ιω. Delbrück (Verb. 202) discovers an isolated parallel to ἐσ-θίω in the Vedic *çru-dhī́-ti* he obeys (rt. *çru* hear).

All the other verbs in -ιω keep the ι in the other tenses as well as in the present: ἀλίω ἤλισα, κυλίω ἐκύλισα, ὀΐω Hom. ὀΐσατο. In the case of denominative verbs like μηνίω, δηρίομαι, κονίω this is hardly to be wondered

at. All these verbs are like the Latin verbs with a permanent *i* like *audire*, *lenire*, and not like such as *cupere*, *fodere*. It is possible that this permanency of the ι was not a primitive feature and that the extension of the domain of the ι was, like that of the nasal affixes, only gradual. But where we find forms with a permanent ι occurring in the very earliest times we are hardly entitled to make such an assumption. In the case of ἀΐειν hear we must not overlook the post-Homeric ἤϊσα and the σ of the Herodotean verbal adjective ἐπάϊστος,—all the less as in the evidently related αἰ-σ-θ-άνο-μαι we see the other stem-expansions following the same consonant. Hesychius's· ἄετε · ἀκούετε does not make against this. Although then the facts here adduced by no means exclude the possibility of the connexion of ἀΐω with the rt. *av* conjectured at Princ. i. 482, it cannot be said, strictly speaking, that the ι of this verb is instrumental in forming the present-stem.

We have more right to maintain this in the case of ἰδ-ίω (Princ. i. 300). For here ἰδ, originally σϝιδ, is unmistakably the root, which appears unexpanded in ἶδ-ος ἰδ-ρό-ς, ἰδ-ρ-ώ(τ)-ς, and the corresponding Sanskrit root *svid* forms its present after the fourth class : *svid-jā-mi*. But we look in vain for a future *ἴ-σω or an aorist *ἶ-σα. All that is preserved is ἐξ-ίδῑ-τα in Aristophanes Av. 791 and forms of the same kind in Aristotle. The length of the ι moreover in Attic (πρὶν ἂν ἰδῇς Aristoph. Pax 85), as contrasted with the Homeric ἴδιον υ 204, is remarkable.

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B)

If, then, we count ἐσθ-ίω and ἰδ-ίω as two instances we may begin this division with no. 3. Presents with diphthongs before the thematic ω have in some cases no corresponding forms of a shorter stem, as παίω ἔπαισα ἐπαίσθην, πταίω ἔπταισα, σείω ἔσεισα σεισμός. In these presents then there is no element to be seen of the kind we seek. Where there are forms of the two kinds, we must distinguish between two classes. On the one hand, a vowel-stem may have directly coalesced with -ιω; on the other, a consonantal stem ending in ϝ or σ may have become exposed to the same transformation after the loss of its final letter. The cases of the first kind are arranged under 1), those of the second under 2).

1)

3) ἀγα-ίο-μαι by the side of ἄγα-μαι, ἀγά-ο-μαι, ἀγᾰ-ζω, has been already mentioned at p. 118.

4) δα-ίο-μαι divide, which we gave at p. 203 as one of the verbs which showed the same method of formation in Greek and Sanskrit. Along with δα-ιό-μεν-ος ρ 332, δα-ίε-το ο 140 we get forms like δά-σονται X 354, δά-σασθαι Σ 511. The forms without an ι might certainly be referred to the stem δατ which underlies δατέομαι. Cp. Leskien, Stud. ii. 122. The double σ of ἀποδάσσομαι P 231, δάσσαντο A 368, in δέδασται A 125 ἀνάδαστος (Plato) might be appealed to in support of this. It is anyhow remarkable how the ι has made its way into other verbal forms and noun-stems δε-δαί-αται (only α 23), δαί-νυ-μι (fut. δαίσω), δαί-(τ)-ς, δαι-τρό-ς, δαι-τύ-ς, δαι-τυ-μών, which, however, finds a complete analogy in the Skt. *dāj* (*dáj-a-tē*) divide, confer, allot. The meanings of this verb with the *j* preserved actually come nearer to those of the

Greek verb than those of *d-jā-mi*, though the latter, according to the Pet. Dict., in composition with various prepositions means also allot, divide, and thus comes so near to the Greek verb in meaning that it can hardly be doubted that it has the same root. We have here a very clear instance of the vacillation early manifested by language between a merely partial stem-expansion—one limited to the present-stem, that is—and one that goes all through the verb. 303

5) *κερα-ίω*, by the side of *κέρα-μαι*, *κεράο-μαι*, cf. p. 120.

6) *θυίω*.

7) Aeol. *φνίω*, which, along with other related formations in which the *ι* is sometimes found and sometimes deducible, have been discussed on p. 147.

2)

8) *γα-ίω*, only preserved in the Homeric part. *γαίων* A 405. Still, *γαῦ-ρο-ς* and the Lat *gau-d-eo* (Princ. i. 211) make it probable that it comes from *γαϝ-ιω*. There are no other tenses.

9) *δα-ίω* kindle, poetical from Homer onwards in the active and middle. Its origin from *δαϝ-ιω* is established by *δε-δαυ-μέ-νο-ς* (Princ. i. 285). *δαϝ* corresponds to the intensified Sanskrit root *du* (*du-nṓ-mi*) burn, whence comes *dav-a-s*, a burning. The perfect is *δέ-δη-ε*, and there is an aor. *δά-η-ται*.

10) *κα-ίω* with the Attic by-form *κάω*, common to all Greek from Homer onwards. The Attic *καύ-σω*, *ἔ-καυ-σα*, *κέ-καυ-μαι*, *καῦ-μα* etc. establish *καϝ* as the stem of the verb.

11) *κλα-ίω* in Homer, Attic by-form *κλάω*. Homer has *κλαύ-σομαι*, *κλαῦ-σε*, *ἄ-κλαυ-το-ς*, the tragedians *κε-κλαυ-μένο-ς*, so that the stem of the verb must be *κλαϝ*, which has perhaps been developed from the rt. *κλυ* wash (*κλύζω* cp. *plo-ra-re* and the rt. *plu*), in the same way as *δαϝ* (no. 9) from *du*.

12) *λι-λα-ίο-μαι* an isolated epic present, which we should be able to derive straight from the rt. *λα* (*λῆ-μα*), if it were not that there is no definite evidence of the existence of such a root (Princ. i. 450). The rt. *las*, on the other hand, is well established, and in Sanskrit it forms a present *lásh-jā-mi* (as well as *lás-ā-mi*) of the same meaning as the Greek word. It is only the reduplication, for which we shall find numerous analogies, especially where the meaning is intensified, that distinguishes *λι-λαίο-μαι* from *lásh-jā-mi*. The Homeric *λε-λιη-μένο-ς* ought perhaps to be referred to *λε-λιλη-μένο-ς*.

13) *μα-ίο-μαι*. Leskien (Stud. ii. 88) has made it exceedingly probable that the rt. *μας* is at the bottom of this present, which occurs in poetry from Homer onwards (E 748 *Ἥρη δὲ μάστιγι θοῶς ἐπεμαίετ' ἄρ' ἵππους*). The forms *μάσσεται* I 394 (Aristarchus), *ἐπιμασσαμένη* τ 468, *ἐπίμαστος* υ 304 377, *μαστήρ*, *μάσμα* all make for this. This *μας* we may regard as a sigmatic expansion of the rt. *ma* which is to be found in *ma-nu-s* and *μά-ρη* hand (*εὐ-μαρής*) with the fundamental notion *touch, feel*. The fundamental meaning is readily distinguishable in some of the Greek forms, while in others the derived meaning 'feel after something, long for,' is prominent (Princ. i. 388). As it is probable that the rt. *ma* measure (Gk. *με*) is also to be referred to the same fundamental notion we should not be excluded from identifying the Skt. *mas* measure with the Gk. rt. *μας*, only this Skt. root is only to be found in lists of roots

(Pet. Dict.), though the present form *más-jā-mi*, which is completely identical with **μασ-jo-μαι*, is also given.

14) *να-ίω* used by poets from Homer onwards. The existence of a *σ* is made probable by such forms as *νάσσα* δ 174, *ἀπενάσσατο* B 629, *νάσθη* Ξ 119. On the related rt. *νες* (*νίσσομαι, νόστος*), which derives support from the Skt. *nas* to join oneself to, cp. Princ. i. 391, Leipz. Stud. i. 141. The *ι*, as in no. 4, appears beyond the present-stem in *να-ι-ετάω* (cp. *ναέται, ναετῆρες· οἰκήτορες* Hesych.).

15) *τρε-ίω* instead of the usual *τρέω* is quoted by Veitch from Timon Phliasius fr. ix. (Wachsmuth); *ἣν πλεῖστοι ὑποτρείουσι σοφισταί* (cp. Oppian Cyneg. i. 417, iv. 117). If we ought to discern in this word the effects left by an early linguistic process, *τρείω* would correspond to the Skt. *trás-ja-mi*. But as it occurs in these late poets, it is possible that it is only due to an imitation of the epic forms we are just about to discuss.

In conclusion, neglecting the alphabetical arrangement, we may group together the following similar epic presents in *ειω*:

16) *θείω*. 17) *πλείω*. 18) *πνείω*. 19) *χείω* (*χέω*).

After all that has been said by others and by myself (Princ. ii. 201 f.), it seems to me most probable, as may be gathered from what has been said on p. 156, that the first three ought, just like *δαίω, καίω, κλαίω*, to be referred to primary forms with an *ι*, i.e. to *θεϝ-ιω, πλεϝ-ιω, πνεϝ-ιω*. *πλεϝ-ιω*—by the side of *πλύνω, πλυτός, πλύμα* and *πλόος*, i.e. *πλόϝος*—gains support from the Ch.-Sl. *plov-jǫ*, the Lith. *plau-ju* and the O. H. G. *flew-iu* (Princ. i. 347).—To *πνείω* (Aeol. *πνεύω*) belong
305 the aorists *ἄμπνυε* (X 222) and *ἀμπνῦτο* and the noun *πνοή* (for *πνοϝη*) and *πνοιή* (for *πνοϝιη*).—Of forms belonging to no. 16 Homer has *θείῃ* Z 507 beside *θέῃσι* Σ 601, *θείειν* K 437, Π 186 etc. beside *θέειν* B 183, Λ 617 etc., of those belonging to no. 17 *πλείειν* I 418, *ο* 34, *πλείοντες π* 368 beside *πλέων* H 88, of those belonging to no. 18 *πνείει* P 447 beside *πνέει ε* 469, *ἐπιπνείῃσι δ* 357, *ἀποπνείων* N 654, *ἀποπνείουσαι δ* 406 and the like. *χείω* (no. 19) is represented in Homer only by *ἐγχείῃ ι* 10, and Hes. Theog. 83 has *χείουσι*. By the side of this come *χόο-ς, χοῦς*, and the shortest forms *ἔχυτο, χύμενος, κέχυται* etc.

Hesiod is our only authority for—

20) *ῥείω*: fragm. 237 Göttl. *ποταμῷ ῥείοντι ἐοικώς*.

We may here add the word discussed by Usener in Fleckeisen's Jahrb. 1872, p. 741 ff.

21) *δεῖν*. *δεῖν* as a neuter participle=*δέον* is there quoted, in conformity with the testimony of old grammarians from several passages in Attic prose writers, especially Lysias 14, 7, Xenoph. Hell. vii. 4, 39. Since *δεῖν* bears to *δέον* the same relation as that of *πλεῖν* more to *πλέον*, Usener justly concludes that there was a present form **δείω*, of which the participle *δεῖον* is the primary form of *δεῖν*, just as *πλεῖον* is that of *πλεῖν*. **δείω* he rightly refers to *δεϝ-jω*, just as at Princ. i. 289 the stem *δεϝ* is given for *δέω*.

There is ground for suspecting other presents with *ι*-diphthongs of having lost consonants in a similar way. But the *ι* appears to have established itself firmly through all the tenses, as is the case in *κνα-ίω, κναίσω, ἔκναισα* by the side of *κνά-ω, κνή-θω*, which Fick i.[3] 49 refers to a rt. *knas*, in *παίω, παίσω* or *παιήσω, ἔπαισα, ἐπαίσθην*—which at Princ. i. 333 I have compared with the Lat. *pav-io*. The *ι* of the latter verb is

treated as if it were that of the *i*-conjugation (cp. also *pavīmentum*), but Paul. Ep. p. 70 quotes from Lucilius the perfect *dē-pŭv-i-t* from *dē-pŭv-io*, so that the *i* of the verb appears to have been a movable one.—πταίω πταίσω, ἔπταισα is of too uncertain etymology to yield us any result for our present purpose.

II. PRESENTS SHOWING THE EFFECTS LEFT BY AN EARLIER *-jω*. 306

A) Verbs in -λλω -λjω.

1) ἄλλο-μαι, ordinary Greek, by the side of the Homeric ἄλτο, conj. ἄλε-ται (cp. above, p. 130), the Att. ἁλοῦμαι etc. Lat. *sal-io* (Princ. ii.167).

2) βάλλω, ordinary Greek, with the Arcadian by-form ζέλλω, δέλλω (Princ. ii. 76), by the side of ἔβαλον (Arcad. ἔζελον), ἐβαλόμην, βαλῶ, βέλος, βολή. If we are not mistaken in the comparisons given at Princ. ii. 76, and the assumption that the primary meaning was flow, glide, the O. H. G. *quillu* scaturio (pret. *qual*) is due to the same method of present-formation.—διαδέλλειν· διασπᾶν Hesych. can be nothing but διαβάλλειν.

3) βδάλλω. Plato Theaet. 174 d is the earliest passage in which the verb is found. Of forms of other tenses there occurs only ἐβδήλατο.

4) βδέλλων· τρέμων ἢ βδέων Hesych. as also βδύλλειν· δεδιέναι, τρέμειν ἢ βδεῖν belonging to βδελ-υρό-ς which is an expansion of the root of βδέω which was originally βδες (Princ. i. 284).

5) δάλλει· κακουργεῖ Hesych., if genuine, belongs to δαλῇ· κακουργῇ, δαλήσασθαι· λυμήνασθαι, ἀδικῆσαι and δηλέομαι. To the latter δάλλω bears exactly the same relation as θηλέω to θάλλω.

6) θάλλω, the present-stem not till after Homer (who has θήλεον ε 73, ἀναθηλήσει Α 236), later it is found in ordinary Greek, by the side of the Homeric τε-θαλ-υῖα, τεθηλώς, θάλος.

7) ἴλλω cannot be put here with complete certainty, inasmuch as it seldom occurs without the variant εἴλω or εἴλλω, while at p. 179 we referred εἴλειν press hard to an earlier ϝελ-νω. Still it is not impossible that from the rt. ϝελ twist, turn there should besides εἴλω have been formed an ἴλλω standing for ϝελ-jω. Cp. Buttmann Lexil. ii. 150 f.

8) κέλλω does not occur in the present, but ὀ-κέλλω is frequent in Attic prose (Princ. ii. 397).

9) μέλλω, ordinary Greek, with λλ all through the verb (Att. μελ- 307
λήσω, ἐμέλλησα), but it is certainly from the same root as μέλει (Princ. i. 412).

10) μύλλω only Theocr. 4, 58, mentioned in the scholia on the passage and elsewhere by grammarians, generally *sensu obscoeno* (μύλλει· πλησιάζει Hesych.), undoubtedly however related to the Lat. *molere* (cp. *permolere*) and μύλο-ς. The same present-formation occurs in the Ch.-Sl. *mel-ją*.

11) πάλλω, in use from Homer onwards, especially with poets, by the side of ἀμ-πε-παλ-ών Γ 355, πάλ-το (cp. above, p. 131), πάλο-ς.

12) σκάλλω scrape up earth, dig, by the side of σκαλ-εύω, σκαλ-ίζω, from Herodotus onwards (ii. 14).

13) σκέλλω dry (trans.) κατεσκέλλοντο Aesch. Prom. 481, by the side of σκελέω, σκελε-τό-ς etc., perf. ἔσκλη-κα, σκλη-ρό-ς. The aorist ἔ-σκηλα (σκήλειε Ψ 191) should by rights have a present σκάλλω. There was

clearly a similar variation between α and ε before λ here as in the rt. μελ (μέλει) with the perfect μέμηλε (Dor. μέμᾱλε).

14) σκύλλω, from Aeschylus onwards, later there is an aor. ἔσκυλα etc.

15) στέλλω, as early as Homer (M 325), by the side of the fut. στελ-έω (β 287), aor. στεῖλα (ξ 248), later ἐ-στάλη-ν, ἔ-σταλ-μαι, ἔ-σταλ-κα.

16) σφάλλω, from Aeschylus onwards by the side of σφαλῶ (also middle), ἐσφάλην, ἔσφαλμαι. Homer has only the aor. σφῆλαι Ψ 719, ρ 464.

17) τέλλω, common from Homer onwards by the side of ἔτειλα, τέταλμαι.

18) τίλλω, as early as Homer (X 406), and from Attic writers τιλῶ, ἔτῖλα, ἐτίλθην and other forms.

19) ψάλλω, from Aeschylus onwards, ἔψηλα.

We may conclude from Hesychius's σήλατο· ἔσεισε that there was a verb *σάλλω belonging to σάλο-ς.

The disyllabic stems are partly, like ποικίλλω (as early as Homer), unmistakably denominative. Of these we shall treat later in connexion with the remaining denominatives of this class. There is however a group of disyllabic stems which we will here give apart from the rest.

Reduplicated Present-stems.

Some of these remind us of the Sanskrit intensives in which the reduplication syllable has been strengthened, as Schleicher (Comp.[3] 758, 308 cp. Bopp Vgl. Gr. § 756) has already remarked. Anyhow the conjunction of reduplication with the mark of the *j*-class is common to both these formations. The other divisions of the class will furnish us with abundance of analogies to this. Gerland (Intensiva und Iterativa, Leipzig 1869) discusses this kind of Greek intensives at p. 32.

20) αἰόλλω υ 27, in Hesiod and Pindar, later αἰολέω. The *o* has led to the assumption that the verb is derived from αἰόλος. No other tenses occur.

21) δαιδάλλω in Homer and Pindar. The latter also forms δεδαιδαλμένος, δαιδαλθείς and (from an evidently denominative by-stem) δαιδαλωσέμεν (Ol. 1, 109). It by no means follows, however, that δαί-δαλο-ς was earlier than δαιδάλλω. Cp. Princ. i. 286.

22) δειν-δίλλω I 180, Apoll. Rhod., with no other tenses. The Sanskrit *ā-dar* trouble oneself, take thought for, compared by Fick[3] i. 106, which is only used in composition with the preposition *ā*, shows a kindred present-formation in *ā-dri-já-tē*. Cp. also the O. H. G. *zil-jan*. The reduplication is like that in δέν-δρε(ϝ)ω-ν beside δρῦ-ς.

23) ἰ-άλλω, from Homer onwards, by the side of the aor. ἴηλα, in poets. Cp. Princ. ii. 171. The root must be ἁλ = Skt. *ar* go, from which likewise there is formed the reduplicated present *ij-ar-mi*, which besides the intransitive meaning has the transitive meaning 'move, bring.'

24) κοι-κύλλω, only in the present-stem in Aristoph. and in grammarians. The etymology is obscure.

25) μοι-μύλλω, related to μύειν, is explained by Pollux ii. 99 by συνάγειν τὰ χείλη, but Hesych. renders it θηλάζειν, ἐσθίειν and it stands,

thanks to Meineke's striking conjecture, in the latter sense at Hipponax fragm. 80 Be.[3]

26) παιπάλλω only given by lexicographers: παιπάλλειν· σείειν Hesych. The word, if genuine, is a kind of frequentative to πάλλειν. It is possible that it arose from a nominal stem which underlies the Homeric παιπαλόεις.

We may also mention here the etymologically obscure ἀτ-ιτ-άλ-λω with its trisyllabic stem,—possibly a denominative related to ἀταλός, ἀτάλλω.

B) Epenthesis of the ι. 309

1) Stems in ρ.

The Lesbian Aeolic dialect took just the same course in the case of stems in ρ as in that of stems in λ, i.e. that of progressive assimilation: φθέρρω : *φθερjω :: βάλλω : *βαλjω. Cp. Ahrens Aeol. 53. The other dialects took a different course. It is true that it is almost exclusively from the Ionic dialect that we get instances of the real anticipatory epenthesis of the ι. Still the assertion of the grammarians, which Ahrens wrongly calls in question, that the Dorians said φθαίρω for φθείρω, leaves little doubt that the Dorians agreed in this formation with the Ionians. We have a distinct testimony to this agreement in the Cretan ΣΠΕΙΡΕΝ adduced by Brugman Stud. iv. 99 from C. I. no. 2556, i. 18, a form which is important for the explanation of this present-formation. For since in the Cretan dialect ει can never come from ε by compensatory lengthening, it proves incontestably that the ι was here really introduced by anticipation from the following syllable.

The case is different with stems in υρ. These show the effect of the j in the following syllable only in the lengthening of the υ: κῦρω, φῦρω. To assume the same process here would be too artificial an hypothesis, and Brugman (Stud. iv. 100, 117) has shown conclusively that in this instance the length of the syllable is due to compensation, and that κῦρω came immediately from a *κυρρω which we may assume on the analogy of the actually occurring Lesbian ὀλοφύρρω. It must be admitted, however, that such presents as have no attested Aeolic counterparts in ρρ, ought possibly to be put into the lengthening class—may perhaps have been formed, i.e. like τῦφω, φρῦγω (p. 158).

1) δείρω, by the side of δέρω, in Hdt. (ii. 39, iv. 64) and Attic writers, Lesb. δέρρω. δαίρω which occurs in some M.SS. at Aristoph. Nub. 442, Av. 365 Dindorf is no doubt right in altering to δείρω. For the orthographical rules of the grammarians—e.g. Herodian ii. 490—know of nothing but δείρω, which analogy demands, and the Aeol. δέρρω (Ahr. Aeol. 53). δείρω i.e. *δερ-jω has been above (p. 203) compared with the Lith. *dir-iù*. A Sanskrit *dīr-jā-mi* of the same formation is 310
also mentioned in the Pet. Dict. as given by grammarians.

2) εἴρω say, from ϝείρω β 162 τάδε εἴρω (λ 137, ν 7), by the side of the fut. ἐρέω, ἐρῶ from Homer onwards; there is also the present εἰρέω, Hes. Theog. 38 εἰρεῦσαι saying.

3) εἴρομαι ask, seek εἴρεαι γ 80, εἴρετο A 513, but like no. 2) with by-forms from a stem in ε: ἐρέων H 128, conj. ἐρείομεν A 62, ἐρέωμαι ρ 509, ἐρέοντο A 332. The stem ἐρ appears without any expansion in the middle aorist-forms in use from Homer onwards ἔρωμαι, ἐροίμην,

ἐρέσθαι (γ 243), to which was later added the indicative ἠρόμην. On the difficulty of connecting these forms with εἴρω say cp. Princ. i. 429.

4) εἴρω set in a row, fasten. The present from Pindar onwards. The Homeric form ἤειρε discussed on p. 81 belongs either to the imperfect or to the aorist, while the unexpanded stem is certainly to be seen in the Homeric ἐερμένος, ἔερτο. δι-έρ-σαι is quoted from Hippocrates. Cp. Princ. i. 441. The Lat. *sero* is an unexpanded form from the corresponding Latin stem.

5) κείρω from Homer onwards (Λ 560, λ 578) by the side of the fut. κερ-έω, κερῶ aor. ἔ-κερ-σα N 546, Princ. i. 181. The Lesbian κέρρω is often given.

6) κῦρω. κῦρον Ψ 821, ἔ-κῡρο-ν Soph. O. C. 1159, κύρεται Ω 530. A by-form of the present-stem occurs in κῦρ-έω Aesch. Prom. 330, ἐκύρουν Soph. El. 1331, whence we find later on κυρήσω etc. The pure stem κῦρ occurs in ἔ-κυρ-σα, κύρ-σω.

7) μείρομαι. μείρεο in the suspicious verse I 616, and ἀπομείρεται is not quite beyond suspicion at Hes. Theog. 801, Opp. 578 (cp. Köchly); the only other passage adduced for it is Aratus 657 (μειρομένη). The forms from the unexpanded stem however are of frequent occurrence: the Homeric ἔμμορε, εἵμαρται, μέρος. At Princ. i. 412 I have connected with it the Lat. *mer-eo*.

8) μύρομαι. Homer has μύρονται T 213, μυρόμενος τ 119, also later poets, and Hes. Scut. 132 has the active impf. μῦρον.

9) ξύρομαι, a by-form of ξυρέω, not before Plutarch.

10) πείρω, poetical from Homer onwards (ν 91, γ 33). The shorter
311 stem occurs as early in πε-παρ-μένος. At Princ. i. 338 I have compared with it the Ch.-Sl. *pra-ti* scindere, of which the 1st sing. *por-jǫ*—though not supported by quotations in Miklosich's Lexicon—is formed in precisely the same way as πείρω.

11) πτύρομαι, only found in Hippocrates, while the aor. ἐπτύρην occurs in Plutarch.

12) σαίρω Eurip. Ion 115 and elsewhere, the shorter stem in σέσηρα (comic poets), Aor. ἔσηρα (Soph.).

13) σκαίρω only in the present-stem. σκαίροντες Σ 572, σκαίρωσιν κ 412. The pure stem is shown in σκαρίζω and with a thinner vowel in σκιρτάω.

14) σπαίρω (cp. below ἀσπαίρω), only in Alexandrine poets, in Aristotle and in late prose. There are no forms found except those from the present-stem.

15) σπείρω, in common use from Hesiod onwards (Opp. 463), by the side of the fut. σπερῶ, pf. ἔσπαρται, aor. ἐσπάρην, σπορά etc. Lesb. σπέρρω.

16) σύρω. Present forms first in Hdt. (ii. 60) and Aristophanes (παρασύρων Equ. 527), ἐσύρην not till late prose.

17) τείρω (Lesb. τέρρω) poetical from Homer onwards (Δ 315), but only in the present-stem. The pure stem must be sought in τέρ-ε-τρο-ν, τέρ-ην and the Lat. *ter-o*. The latter is related to τείρω exactly as *sero* is to εἴρω (no. 4).

18) φθείρω, Lesb. φθέρρω, from Homer onwards with the fut. φθέρσω, later φθερῶ, ἐ-φθάρ-ην, ἔ-φθορ-α etc.

19) φύρω, in general use. Ω 162 δάκρυσι εἵματ' ἔφυρον. We cannot put this verb here without reserve, for the short stem φῠρ which we thus

are obliged to assume, is nowhere to be found. Even the derivative *φυράω* has *ῡ* (Aesch. Sept. 48). The present-stem seems therefore to have become completely petrified, unless indeed we ought to explain the long vowel in quite another way.

20) *χαίρω*, in general use, beside *ἐ-χάρ-ην*—Homeric *κεχαρήσω*, *κεχαρ-ήότι*, *κεχάροντο*. If at Princ. i. 244 we were right in comparing the Skt. *hár-jā-mi* amo, desidero, there is a correspondence even in the formation of the presents, as also in the Umbr. *herie-st* volet, and the Osc. *heriiad* capiat. There is, however, a difficulty in the difference of the meanings.

21) *ψαίρω*, a rare verb, denoting vibrating motion, used only in the present-stem. Aesch. Prom. 394.

Besides these monosyllabic stems there are also a few disyllabic: viz. 312

a) Reduplicated stems,

corresponding exactly to those mentioned on p. 212 f., i.e.

22) *γαργαίρειν* swarm with, in Cratinus (Meineke ii. 221): *ἀνδρῶν ἀρίστων πᾶσα γαργαίρει πόλις*. It is natural to conjecture a relationship to *ἀγείρω*, *ἀγορά*, *παν-ήγυρι-ς* (no. 27), to which *γαργαίρω* seems to be an intransitive intensive.

23) *καρκαίρειν* ring or quake: *κάρκαιρε δὲ γαῖα πόδεσσιν* Υ 157.

24) *μαρμαίρειν* shimmer, poetical from Homer onwards (Ν 22). The unexpanded stem appears in *μαρμάρεος*, *μαρμαρυγή*.

25) *μορμύρειν* boil, bubble, the same.

26) *πορφύρειν* move in waves (used of the play of colours), the same. A short *υ* appears in the related *πορφῠρέω* (late), *πόρφῠρος*.

b) Stems with prothetic vowels.

27) *ἀ-γείρω*, ordinary Greek by the side of the Homeric aor. *ἀγέροντο*, *ἀγρόμενοι*, *ἠγέρθην*, *ἀγορά*, *παν-ήγυρις*. Lesb. *ἀγέρρω*. The derivation from *ἀ* copulative and the rt. *gar* (*γηρύω*) does not suit the use of the words well. *ἀγείρεσθαι*, *ἀγέρεσθαι* in Homer denotes the carrying out of the command proclaimed by the herald: Β 52, 444 *τοὶ δ' ἠγείροντο μάλ' ὦκα*, and *ἀγύρτης* beggar (i.e. collector), *ἀγυρμός* have nothing whatever to do with calling. It is better with Fick[3] i. 73 to compare the Skt. *grā́-ma-s* troop, mass, with which, however, we must also connect the Lat. *grex* and *γαργαίρω* given at no. 22.

28) *ἀ-είρω* (Lesb. *ἀέρρω*) from Homer onwards (Ψ 366 *ἀειρομένη*, Τ 386 impf. *ἄειρε*, Hdt. *ἤειρε*) with the plupf. *ἄωρτο*, aor. *ἄερθεν*. The contraction begins in Homer (*αἴροντας* Ρ 724, *ἀρθείς* Ν 63), in the tragedians we find *ἀρῶ* (e.g. Aesch. Pers. 795, Iph. T. 117), *ἆραι*, *ἦρμαι* and *αἴρω*, and when we come to Attic prose only the contracted forms are found.

29) *ἀ-σπαίρω*, by the side of *σπαίρω* no. 14, from Homer onwards (Μ 203). For its derivation see Princ. i. 358. Since this stem, like no. 28, begins with two consonants, it is possible that the *ἀ* is here the remnant of a reduplication, in which case *ἀ-σπαίρω* : *γαρ-γαίρω* :: *ἔ-σπαρ-ται* : *γέ-γραπται*.

30) *ἐ-γείρω* (Lesb. *ἐγέρρω*) from Homer onwards, by the side of the 313
Homeric *ἔ-γρετο*, *ἐ-γρή-γορ-α*, *ἠγέρ-θην* etc. Cp. Princ. i. 221. Fick[3] i. 72 compares *ἐ-γείρω* with the Skt. causative *ǵā-garajā-mi* I awaken. In this case *ἐγείρω* would be a derivative verb.

31) *ὀ-δύρομαι*, the prevailing form from Homer onwards (Χ 424), by

the side of δύρομαι (Aesch. Prom. 271, Eurip. Hec. 740) and πάνδυρτος (Aesch. Soph. Eurip.).

2) Stems in ν.

Since the ν in many of the stems which fall under this head is just as movable as the epenthesised ι, many of the following verbs have been already noticed among those of the nasal class, especially βαίνω on p. 185. In cases where we have no short-vowel forms of other stems than the present it is often impossible to decide whether a present has been formed according to the nasal-class or the i-class. For instance it is by no means impossible that the verbs δίνω, δύνω, θύνω, πίνω, φύνω given on p. 178 f. arose from *δινϳω, *δυνϳω etc.; and when on the other hand we assign σίνομαι to the i-class, and so refer it to *σινϳομαι, the only reason we have for this is that no root *σι is anywhere to be found. It is possible all the same that there was such a root, and that σίνο-μαι came from *σι-ιϝο-μαι. Only where, as in θείνω, καίνω an i-diphthong, or where, as in κρῑ́νω with its fut. κρῑνῶ, forms with a short vowel and a ν occur, have we clear and certain proof of the original existence of a ϳ in the present-stem. It should be said that out of the following list, besides κίνομαι above mentioned, θείνω, καίνω and σαίνω are the only verbs whose stems show a ν under all circumstances.

1) γείνομαι, poetical, γεινομένῳ Υ 128, δ 208, Hes. Theog. 82, the usual present being γίγνομαι, so the Skt. *ǵā-jē*, one of the presents of the rt. *ǵan*, though this has no *n*.

2) δραίνω, belonging to δράω do, only at Κ 96; we get the stem without the ι in ὀλιγοδρανέων, Princ. i. 294.

3) θείνω poetical from Homer onwards (Η 339); Attic dramatists have forms with ε, which are now rightly regarded as aorists, and are hence accented θενεῖν, θενών. The rt. θεν = the Lat. *fen* in *fen-do* (Princ. i. 316).

314 4) καίνω from Aeschylus onwards by the side of κανῶ, ἔκανον, κέκονα; it can hardly be from a different root from that of the fuller and older form κτείνω and the Skt. *kshan* (Princ. i. 192).

5) κλίνω (Lesb. κλίννω) ordinary Greek, with the fut. κλῑνῶ (Aristoph. Plut. 621), ἐκλίνην (Aristoph. Lys. 906), ἔκλῑνα. The rest of the tenses come from the shortest stem κλι. κλῑνή from the present-stem.

6) κραίνω. In Homer the apparently denominative κραιαίνω is the prevailing form. κραίνουσι τ 567. κραίνω from Pindar onwards in poets. Homeric fut. κρανέεσθαι, aor. ἔκρηνα etc.

7) κρῑ́νω, ordinary Greek with the fut. κρῑνῶ (διακρινέει Β 387), ἔκρῑνα, ἐκρίνθην, later ἐκρίθην from the shortest stem, like κέκρικα, κέκριμαι. The Lesb. present-form κρίννω has the testimony of an inscription C. I. 2166, 23, ἐπεκρίννετο.

8) κτείνω (Lesb. κτέννω), cp. no. 4, than which this is an older and commoner form, from Homer onwards with κτενῶ, ἔκτανον. The shorter stem contained in κτά-μεναι etc. was discussed on p. 130.

9) μαίνομαι (rare active ἐκμαίνω Eurip.), in use from Homer onwards, with μανοῦμαι, ἐμάνην, μέμηνα. The corresponding Indian and Persian formations, which, however, have a different meaning, are mentioned on p. 203.

10) ξαίνω χ 423, later in common use, ξᾰνῶ, ἐξάνθην. Cp. ξέω, ξύω.

11) ῥαίνω, from Homer onwards (ῥαίνοντο Λ 282). The forms ἐ-ρράδ-αται ν 354, ἐρράδατο Μ 431, ῥάσσατε ν 150 point to a root ῥαδ which again is identical with ἀρδ (ἄρδω). ῥαίνω therefore perhaps stands for ῥαδ-νι̯ω (Princ. i. 283), and here also we have a threefold formation: ῥαδ ῥα(δ)ν ῥα(δ)νι. Fut. ῥᾰνῶ.

12) σαίνω, from Homer onwards (κ 219). There appear to be no forms with a short vowel.

13) σίνομαι (Lesb. σίννομαι), from Homer onwards (μ 139). No forms but those of the present and weak aorist stems.

14) τείνω. This present-stem is not clearly established in Homer, as τείνῃ Π 365 may be an aorist, but from Aeschylus onwards it is in common use, by the side of τενῶ, ἔτεινα and the forms from the rt. τα τέταται, ἐτάθην, τατός.—Cp. τιταίνω.

15) φαίνω bears to φαείνω a relation similar to that of κραίνω to κραιαίνω. The present-stem is in universal use by the side of φανῶ, φανοῦμαι, ἐφάνην, πέφηνα. The shortest stem φα may be seen most 315
clearly in πεφήσομαι (P 155).

16) χαίνω a late present, first found in the poets of the Anthology, to the st. χαν (χανών Π 350, κεχηνώς Π 409, ἐγχαυοῦνται Aristoph. Lys. 271), for which the present in use is χάσκω (cp. p. 197). There is also χανεύειν· βοᾶν Hesych. (Gust. Meyer n. P. 50).

17) χραίνω, from Aeschylus onwards; forms without the ι are rare: χρᾰνῶ Pseudo-Eurip. Iph. Aul. 971, late ἐχράνθην.

Reduplicated Forms.

18) ἀναίνομαι formed apparently from the negative ἀν, in use from Homer onwards, the only form from another stem being ἀνήνασθαι.

19) βαμβαίνω Κ 375 ὁ δ' ἄρ' ἔστη τάρβησέν τε, βαμβαίνων, later also of trembling and hence stammering of the tongue. Only in the present-stem.

20) παμφαίνω epic (Λ 30, Τ 398) with the part. παμφανόων. Cp. φαίνω. The intensive force comes out clearly.

21) παπταίνω poetical, P 674 πάντοσε παπταίνων; Soph. Aj. 11. Aor. πάπτηνα as early as Homer. A by-form in Lycophron is παπταλάομαι.

22) τετραίνω. The aor. τέτρηνε, which shows that the reduplication stuck to the stem, is as early as Homer, the present not till Herodotus and Aeschylus. Cp. τιτράω.

23) τιταίνω only in Homer (Β 390, Ψ 403) and other epic writers. Also τιτήνας (Ν 534).

καγκαίνω and τετρεμαίνω, the latter of which is characterised by an inserted αν as well, have been already mentioned in the nasal-class (p. 185 f.).—Hesychius's glosses γαγγαίνειν· τὸ μετὰ γέλωτος προσπαίζειν, δαδαίνειν, δανδαίνειν· ἀτενίζειν, μεριμνᾶν are of too uncertain a nature (cp. Mor. Schmidt) to be included in the list.

3) An isolated stem in κ.

πείκω only σ 316, εἴρια πείκετε χερσίν, Hes. Opp. 775 ὅϊς πείκειν. Cp. above, pp. 162, 168. Isolated though this verb is in its present-formation no doubt is possible on the subject. Moreover analogies in other

classes of formations for the anticipatory epenthesis of the ι before a κ have been collected at Princ. ii. p. 335 f., and it is possible that the
316 effort to distinguish between πείκω and πέσσω had something to do with the special treatment of the *kj* in this case.

C) Presents in σσ (ττ).

I have discussed the origin of this σσ in its proper place at Princ. ii. p. 323 ff. It is an undoubted fact that σσ (Att. and Boeot. ττ) bears to ζ the relation of tenuis to media, and consequently for presents in σσω (ττω) we are to expect to find roots ending in κ, χ or τ, θ, and for presents in ζω (Boeot. and Megar. δδω) roots ending in γ or δ. The few exceptions to this,—to be marked with a *,—are mainly referable to older and sometimes actually occurring by-forms with a harder final letter to the root, which hard letter afterwards became softened. But few verbs point to a radical sigma, and many occur only in the present-stem or else show a fluctuation between different stems.

1) Verbs from guttural roots.

1) *ἄ⌒σω an unauthenticated by-form of ἄγνυμι only quoted in Steph. Thes. from the E. M. κατάσσω in Appian and Artemidorus.

2) βήσσω quoted from Hippocrates, comic poets, and Xenophon, βήξω, ἔβηξα. Cp. the noun-stem βηχ nom. βήξ.

3) βρύττω, only given by lexicographers: Hesych. βρύτταν· ἐσθίειν. E. M. p. 216, 25 however gives βρύττοντες as Athenian for πυρέττοντες, παρὰ τὸν βρυχετόν, so that the use of the word arose from the chattering of the teeth in a fever. βρύττω is only another present for βρύκω. It seems though that we ought to assume two stems of the form βρυκ, one with the meaning συνερειδειν τοὺς ὀδόντας μετὰ ψόφου (Hesych.), to which belong the aspirated βρυχή, βρύχω, the other with a force differing little from that of the apparently related βιβρώσκειν.[3]

3 b) γλαύσσω, διαγλαύσσουσι Apollon. Rhod. 1280, cp. γλαυκό-ς.

4) δράσσομαι. Homer has only δεδραγμένος, the tragedians only
317 perfect-forms. The present occurs first in Herodotus (δρασσόμενος iii. 13); Aristoph. (Ran. 545) has ἐδραττόμην, and Plato (Lys. 209) δραξάμενοι; the active first occurs in Pollux. From δράξ, gen. δρακός, hand, I have inferred (Princ. ii. 98) that the root is δρακ, while Fick[3] i. 107 starts from δραχ and compares this with the Zd. *drazh*, the Ch.-Sl. *drŭzati* hold fast.

5) θράσσω the shorter form of ταράσσω in Pindar, the tragedians etc. Aor. ἔθραξα. Perf. τέτρηχα.

6) ἐν-ίσσω, by-form of ἐνίπτω, X 497, cp. above, p. 164.

7) προ-ΐσσομαι Archil. fr. 130 B.[3] along with προ-ϊκ-τη-ς beggar (ρ 352) and προίξ gift, present, apparently belongs to the stem *isk* ask for mentioned on p. 189.

8) κλώσσω, a rare by-form of κλώζω, only preserved in Suidas s. v. φωλάς, cp. the Lat. *glocio*.

9) λεύσσω, poetical from Homer onwards (Γ 110), no other tenses. Not till poets of the Anthology, Manetho etc. do forms like λεύσω,

[3] δα-δύσσεσθαι, δαι-δύσσεσθαι· ἕλκεσθαι, known only from Hesychius, is well compared by Roscher Stud. iv. 109 with the Lat. *dūco*, Goth. *tiuha*.

λεύσας occur, and these are sometimes doubtful. The κ is established for the root by the Skt. *lōk* (Princ. i. 196).

10) *μάσσω, common in Attic. In Homer only ἀναμάξεις τ 92. The aorist ἐμάγην, μαγεύς, μᾶζα, μάγειρος point to a rt. μαγ, which however (Princ. i. 405) has apparently been softened from μακ.

11) μύσσω. ἀπομύττω first found in Attic writers, ἀπομυξάμενος Aristoph. The Skt. *muk* and the Lat. *mūcus* prove the root to have ended in κ, which in *mungo* has been softened to *g* (Princ. i. 198).

12) *νύσσω from Homer onwards (νύσσοντες Ν 147, νύξε Π 346). γ shows itself to be the real final letter of the root in ἐνύγην, which however does not occur before Plutarch. On its origin cp. Princ. ii. 165.

13) ὄσσομαι, Epic (Σ 224) from the rt. ὀκ which is preserved in *oc-ulu-s*, is transformed in just the same way in ὄσσε (from ὀκι-ε), and elsewhere appears labialised as ὀπ (ὄψομαι, Princ. ii. 62).

14) πέσσω, in general use from Homer onwards (Δ 513). The late by-form πέπτω has been mentioned on p. 165. The κ of the root appears labialised in the other tenses; Skt. *pak*, Lat. *coquo* (Princ. ii. 65).

15) *πήσσω a late by-form of πήγνυμι first found in Strabo and Dion. Halic., about which it is doubtful whether it is to be referred to the original stem πακ (Princ. i. 332), or owes its existence only to analogy.

16) *πλήσσω, as early as σ 231, afterwards in general use in composition. Forms like ἐπλήγην (Γ 31), πληγή seem to point to a radical γ. But the Lith. *plak-ù*=πλήσσω and the nature of the σσ allow us to conjecture that there once was a *k* in its place. 318

17) πλίσσομαι stride, ζ 318 εὖ δὲ πλίσσοντο πόδεσσιν, related to πλίξ, πλίγμα, πλιχάς, ἀμφιπλίξ and thereby proved to be of guttural stem. Cp. Princ. i. 203.

18) *πράσσω from Homer onwards (ν 83 πρήσσουσι) by the side of πράξω, ἔπραξα, πέπρᾶγα. The γ is shown by the πρᾶκός of an inscription to have been weakened from κ (Princ. ii. 327).

19) πτήσσω, a post-Homeric present. Beyond the present the stem appears with the same meaning in a twofold form: πτα κατα-πτή-την (cp. p. 127), πε-πτη-ώς ξ 354, πτα-κ κατα-πτακών Aesch. Eumen. 252, also (κατα)-πτῆξαν θ 190.

20) πτύσσω, from Homer onwards (πτύσσοντο Ν 134) by the side of πτύξομαι, πτύξαι, πτυκτός etc. πτύχ-ες πτυχ-ή show a radical χ, which perhaps originated in a κ (Princ. ii. 105, 116).

21) πτώσσω, especially in poets from Homer onwards (Δ 371, σ 363), but only in the present-stem, evidently of the same root as πτήσσω. A remarkable by-form is πτωσκαζέμεν Δ 372. The χ which appears in πτωχός has apparently come from a κ.

22) ῥάσσω, a late present—first found in Dion. Halic. viii. 18 (συρράττουσι)—to the much older forms ἐπιρράξασα (Soph. O. C. 1503), κατερράχθην (Thuc.). Cp. ἀράσσω. The final letter of the stem cannot be determined with certainty.

23) *ῥήσσω, a late by-form of ῥήγνυμι (cp. above, p. 112), an altogether different word from the Homeric ῥήσσειν (no. 44) stamp.

24) σάττω (Hippocr. σάσσων) post-Homeric. σεσαγμένος (Aesch. Ag. 644). A guttural root is shown by the aorist σάξαι (Hdt. Xenoph.) and σάκος, σάγη, while Hippocrates has ἔσασε and other like forms.

25) *σφάττω, the present-form in late Attic from Plato onwards, while Homer, Herodotus, the tragedians and Thucydides have only σφάζω.

The root is shown by *σφάξαι* and *ἐσφάγην* to have been *σφαγ*. Cp. Princ. ii. 327.

26) **τάσσω*, post-Homeric with *τάξω*, *ἔταξα*, *ἐτάγην*. (post-Attic),
319 *τᾰγός*, so that the root appears to be *ταγ*, with which however no comparisons can be made from the related languages. *ταγ* might easily stand for **τακ*.

27) *τύσσω*. We only know *τύσσει· ἱκετεύει* Hesych., which it is natural to conjecture to be related to the rt. *τυχ τυγχάνειν*.

28) **φράσσω* a present to the Homeric *ἔφραξα*, *ἐφράχθην* first found in Hippocrates. Forms with a *γ* like *ἐφράγην*, *πέφραγα* do not appear before Plutarch. In the Attic by-forms *φράγνυμι* or *φάργνυμι* (p. 112) the *γ* is due to the influence of the *ν*, as in *πλέγνυμι*. Lobeck saw that *φράσσω* and *farcio* were identical (Rhem. 103). Cp. Princ. i. 376.

29) *φρίσσω* ordinary Greek. *φρίσσει* N 473, with *ἔφριξα*, *πεφρίκασι* Λ 383, *φρῖξ*, *φρίκη*, so that there is no doubt about *φρικ* being the root.

30) **φρύσσω* a quite late by-form of *φρύγω*. At Theocr. vi. 16, xii. 9 the reading *φρύγειν* has decidedly better authority than *φρύττειν*.

2) Verbs from dental stems.

31) *ἄττομαι*=*διάζομαι*, I weave, only known from Bekker Anecd. 452 and 461 (Lobeck Rhem. 78). The authorities given for it are in the former passage Sophron, in the latter Hermippus the poet of the old comedy (Meineke Com. ii. 382). The form *ἄσμα* (Sophron) establishes the dental. It seems then that *δι-άζεσθαι* is related to *ἄττεσθαι* in the same manner as *βράζω* to *βράσσω*. The lexicographer above-mentioned holds the two verbs to be one and the same '*μεταβολῇ τῶν δύο σσ εἰς ζ*.'

32) *βράσσω*, only the present-stem, with the late by-form *βράζω*, is found in the Attic period (Plato, Aristoph.), *βράσω*, *ἔβρασε*, *βρα-σ-μός* not till later. For a conjecture as to its etymology cp. Princ. ii. 215.

33) *θέσσεσθαι· αἰτεῖν*, *ἱκετεύειν* Hesych. by the side of *ἀκύ-θεσ-το-ς* and the aor. *θέσσασθαι*, apparently to be referred to the rt. *θες* (Princ. ii. 130).

34) *θλάσσω*, a by-form for *θλάω* only found in Galen and other late
320 medical writers. Even the latter is not attested by any old writer, while *ἔ-θλᾰ-σεν* occurs as early as *σ* 97, and *θλάσσε* at Ε 307. Accordingly it has been conjectured that the root is *θλας*.

35) *λίσσομαι* from Homer onwards (Α 174) with the aor. *λιτέσθαι* (Π 47) and *ἐλλισάμην* (λ 35), *πολύλλιστος*, *λιτή*, *λιτανεύω*.

36) *νίσσομαι* a poetical present (*νίσσοντο* Μ 119, *νισσόμεθα* κ 42), which not unfrequently gets a future meaning, constantly replaced in M.SS. by *νείσσομαι*, *νείσομαι*, *νίσομαι*, which are rightly rejected by most modern editors. Buttmann Ausf. Gr. i. 375 n. has given the best discussion of the word. A future *νίσομαι*, as I. Bekker among others writes at Ψ 76, is against all analogy. For there can be no doubt that *νες*=the Skt. *nas*, the root which appears most plainly in *νόσ-το-ς*, and that *νέ(σ)-ω* has been formed from it without any strengthening, while *νίσσομαι* has the expansion peculiar to this class (and consequently=*νεσ-ιο-μαι*, Princ. i. 391). Cp. *ναίω*, above, p. 210.

37) *πάσσω*, from Homer onwards (Ε 900), also *πᾰ́σω*, *ἔπᾰσα*, *ἐπάσθην* in Attic writers. Fick[3] i. 135 compares the Zend verb *path-yâi-ti* of which

the present-form corresponds to πάσσω, though its meaning 'fill up' is a long way from that of πάσσειν 'strew.'

38) πάσσομαι· ἐσθίω Hesych., clearly a by-form of πατέομαι, which points to a rt. πατ.

38 b) πλάσσω, from Herodotus onwards (πλάττω in Plato etc.). Aor. πλάσσε, πλαστός as early as Hesiod, πέπλασται ἐπλάσθη Attic.

39) πτίσσω Pherecr. Meineke Com. ii. 345, by the side of πτίσαι, ἐπτίσθαι in Herodotus and the Attic comedians. The word is unmistakably related to the synonymous Skt. *pish* (*pinásh-mi*), Lat. *pinso*, Ch.-Sl. *pišǫ* (Princ. ii. 104). The root shows in Greek a τ developed after the π. Consequently we may compare the Lat. *pins-io* (Ennius trag. v. 396 Ribbeck *pinsibant*) with πτίσσω for its present-formation as well as its root.

3) Verbs with stems of which the final letter is uncertain.

40) ὑπο-δρήσσω in late poets (Apollon. Rhod. etc.) formed on the analogy of the Homeric ὑποδρηστήρ, only in the present-stem.

41) κνώσσω poetical (δ 809) only in the present-stem.

42) λύσσεται· μαίνεται Hesych., a totally isolated and therefore suspected gloss. Cp. λύσσα.

43) νάσσω, a present-form not found till late prose (Athen. iv. p. 321 130), ἔναξε φ 122, κατανάξαντες Hdt. vii. 36, νακτός Hesych., but at Aristoph. Eccles. 840 νενασμέναι is the reading of the M.SS. (Dind. νεναγμέναι) and Theocr. ix. 9 νένασται. It is hardly probable that it is connected with νάκος, νάκη hide, fleece, and I know of no other word to connect it with.

44) ῥήσσω stamp Σ 571 and in late epic writers, quite distinct from ῥήγνυμι, more likely to be identical with ῥάσσω (no. 22) and ἀράσσω (no. 51), which have a guttural stem.

45) φλύσσει· ἐρυγγάνει Hesych., a by-form of φλύω, φλύζω, φλυνδάνω, with which φλύκταινα is also connected. Nearer still is φλύσει· ἀποβαλεῖ, ἐμέσει, ζέσει and ἐκφλύξαι Apoll. Rh. i. 275 (Lob. Rhem. 101).

46) ψύττει· πτύει Hesych.

4) Reduplicating verbs.

(These we will give without distinction of stem.)

47) δει-δίσσομαι transitive, frighten N 810, Δ 184, intransitive, be afraid B 190, δεδιττόμενος Plato Phaedr. p. 245 b, in the former meaning there are δειδίξεσθαι Υ 201, δειδίξασθαι Σ 164.

48) παιφάσσω B 450 σὺν τῇ παιφάσσουσα διέσσυτο λαὸν Ἀχαιῶν, then not again till Apollon. Rhod., Oppian etc. Although the primary meaning seems to be that of violent rushing about (ἐνθουσιωδῶς φέρεσθαι Schol. Apoll. Rh. iv. 1442) we can hardly deny that it is connected with the rt. φα φαίνω (cp. Lat. *fax*, *fac-ie-s*, *fac-ētu-s*).

49) ποιφύσσω snort, first in Nicander, though ποίφυγμα is as early as Aeschylus, which proves, in spite of φῡσάω, that the stem ended in a guttural (Princ. ii. 117).

5) Verbs with vowels of a late development.

Under this head fall not only those with a prothetic vowel, such as

have met us in other divisions of the *i*-class, but also one stem which has become disyllabic by an internal development of the vowels.

50) *ἀ-ΐσσω* from Homer onwards (P 662 *ἀντίον ἀΐσσουσι*, Z 510 *ὥμοις ἀΐσσονται*) by the side of *ὑπᾰΐξει* Φ 126, *ἤϊξεν* Φ 247, *᾽ᾰΐξασθαι* X 195. From Pindar onwards there occur also the contracted forms *ᾷσσω* (Att. comic writers *ᾷττω*), *ἦσσον*, *ᾷξω*, *ἦξα*. The final letter of the root appears in *᾽ᾱϊκή*, *τόξων ἀϊκάς* O 709. *ἀΐσσειν* can only be brought into connexion with the Skt. rt. *vīǵ* dart, fly off, whose meaning is very similar (cp. Pet. Dict. under *vīǵ*), on the assumption that the Indian *ǵ* had been weakened from *k*. Still I am not aware of any certain instance of such a weakening in Sanskrit.

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51) *ἀμύσσω*, from Homer onwards (*ἄμυσσεν* T 284) with *ἀμύξεις* (A 243), *κατ-αμύξατο* (E 425) and the like. The *χ* of the late *ἀμυχή* no doubt came from a *κ*, hence *ἀμυκ-αλαί· ἀκίδες* Hesych. Cp. the Lat. *muc-ro* Princ. ii. 165.

52) *ἀράσσω* ordinary Greek, *ἄρασσε* (*ε* 248) with *ἀράξω* (Ψ 673), *ἀράχθη* (*ε* 426). It is probably connected with *ῥήσσω* (no. 44). Cp. Princ. ii. 132.[4]

53) *ὀρύσσω* ordinary Greek (*κ* 305), *ὀρύξω*, *ὤρυξα*, *κατορυχησόμεσθα* Aristoph. Av. 394, *ὀρυχή*, not so good Attic *ὀρυγή*. Cp. Princ. ii. 141. The stem *ὀρυχ* apparently owes its *χ* (cp. no. 50) to the aspiration of an original *k*. Fick[3] i. 744 aptly compares the Lat. *runcare* to hoe, *runco* a hoe, and is perhaps right too in connecting the mining term *cor-rūgu-s* and *ar-rūg-ia* gallery in a mine.

54) *ταράσσω*, the present-form, found in common use from Pindar onwards, of the stem formed by anaptyxis of an *α* after the *ρ* of the stem *ταρχ* (*θράσσω* no. 5). The form *τάρχη· τάραξις* Hesych. is instructive (Princ. ii. 319, 402). *ἐτάραξε* occurs as early as *ε* 291 with *τετρήχει* B 95, cp. *ταραχή*. Joh. Schmidt Vocal. ii. 314.

D) Presents in *ζ*.

1) From dental stems.[5]

1) *βλύζω*. *ἀποβλύζων* I 491, also *βλύω*, likewise with a long *υ*. Forms of the future and aorist are hardly to be met with before Aristotle (*ἀναβλύσαι*, Apoll. Rhod. iv. 1446 *ἔβλυσεν*).

2) *βράζω*. The only authorities for this by-form of the *βράσσω* dis- 323 cussed under no. 32 are late prose writers.

3) *βύζω*, a late and rare by-form of *βυνέω* (cp. p. 184), *βύω* (Aristot.) in an intransitive sense 'crowd, cluster' (Aretaeus '*ἡ πτύσις βύζει*' Steph. Thes.). *βεβυσμένος* as early as *δ* 134.

4) *ἕζομαι* and *ἵζω*, *ἵζομαι*, inseparably connected with each other, notwithstanding that the forms with an *ε*, as Buttmann (Ausf. Gr. ii.[2] 202), has shown, have the inceptive meaning seat oneself, and those with an *ι* the durative meaning sit. Buttmann's conjecture that *ἕ-ζε-το* is a reduplicated aorist like *ἑ-σπε-το* is untenable because the origin of *ζ* from *σδ* which he maintains can nowhere be established. It would be more conceivable that *ἵζω*, as Kühner Ausf. Gr. i. 837 assumes, has arisen

[4] **δδύσσομαι* (Princ. i. 303) does not occur in the present-stem at all.

[5] *βλάζειν· μωραίνειν* (Hesych.) probably belongs here in virtue of *βλαδ-αρό-ς*, *βλαδ-ής* and other words with a *δ*.

from a reduplicated σι-σεδ-jω, though that cannot be proved either. It is probable though that the ι, as in ἰδ-ρύ-ω, is only a weakened ε.—In Homer the ind. pres. ἕζομαι, a form which Buttmann suspected, only occurs at κ 378 (ἕζεαι), but it is attested in good Attic by Soph. O. R. 32 and Aristoph. fr. 408 Dind. (καθέζομαι). The preterite ἕζετο etc., later usually in composition with κατά, is ordinary Greek.—ἵζω, ἵζομαι from Homer onwards.—The rt. ἑδ (from σεδ=Lat. *sed* in *sed-eo*, Skt. *sad* etc. Princ. i. 297) comes out clearly in the Attic future καθ-εδ-οῦμαι (Aristoph., Plato), as too in ἕδ-ος, ἕδ-ρα.[6]

5) κλύζω from Homer onwards (κλύζεσκον Ψ 61, ἐκλύσθη Ξ 392). Cp. κλύδων, Princ. i. 185, ii. 300.

6) κνίζω from Sophocles onwards in the present-stem, found in the aorist ἔκνῖσα as early as Pindar, κνίσω, ἐκνίσθην. Cp. Fick[3] i. 538.

7) κρίζω, deducible from the Boeotian κριδδέμεν γελᾶν, cp. Ahrens Aeol. 175, Princ. ii. 258, Lat. *rīdēre*. It is probably not the same word as κρίζειν shriek.

8)[7] κτίζω the present-stem occurs first in Herodotus, ἔκτισα in Homer 324
(λ 263). Cp. -κτί-μενο-ς p. 129 and Princ. ii. 300.

9) ὄζω from Aeschylus onwards. ὀδώδειν ι 210. The pure δ comes out in ὀδ-μή as well, as also in *od-or* and in the Lith. *ŭd-žu* of the same present-formation. Princ. i. 302.

10) ἐμ-πάζο-μαι, only in the present-stem in Homer (Π 50, β 201) and late poets, but the dental of the stem is established by Hesychius's gloss ἐμπαστῆρας μύθων· πιστωτάς, μάρτυρας (Lobeck Rhem. 8). ἔμ-παιο-ς acquainted with, seems to be related.

11) πρίζω a later by-form of πρίω Plato (?) Theages 124, Pollux vii. 114, Herodian i. 443. 13, πριστός though occurs as early as σ 196.

12) σκύζομαι Δ 23. The dental stem is established by ἐπισκύσσαιτο η 306 and the synonymous σκυδμαίνω (Ω 592).

13) σχάζω Xenoph. Hellen. v. 4, 58, by the side of σχάω (ἔσχων Aristoph. Nub. 409). σχάσω and ἔσχᾰσα occur earlier and more often.

14) σχίζω. The present-stem is in general use from Pindar onwards, ἔσχισε, ἐσχίσθη are as early as Homer (δ 507, Π 316). The rt. σχιδ comes out clearly in nominal forms like σχίδη, σχίδαξ. Princ. i. 306.

15) φλάζω a present assumed for the aor. ἔφλαδον (they burst asunder) in Aesch.

16) φλύζω by the side of φλύω (ἔφλυε Φ 361). φλύζει· ἀναζεῖ, φλύσει· ζέσει Hesych. Cp. φλύσσω p. 221, no. 45.

17) φράζω, in general use from Homer onwards (φράζεο Ξ 3) with φράσω, ἔφρασα, ἐφράσθην, Homeric ἐπέφραδον (Κ 127). On the Boeotian φράσσω see Princ. ii. 226.

18) χάζω ἀγ-χαζε Soph. fr. 800 Dind., χάζομαι (Ε 440), fut. χάσσο-μαι, aor. χάσσατο. The pure stem of the original root *skad* occurs in κεκαδών (Λ 334), κεκάδοντο (Δ 497), Princ. ii. 110.

19) χέζω Aristoph. Equ. 70. The dental stem is established by χεσοῦμαι, ἔχεσα, κέχοδα, cp. the Skt. *had*. Princ. i. 245.

[6] κλάζω διασχίζω Hesych., a by-form of κλάω, which the well-attested ἔκλασα, κλαστός, κλάδος would just suit. Still the testimony to the present-form is not clear enough to gain it a place along with the others.

[7] λάζω ὑβρίζω only known from the Schol. on Eurip. Hec. 64 and Hesych. λάζειν· ἐξυβρίζειν, appears, in virtue of λασάσθω· χλευαζέτω Hesych. to belong here. Lobeck Rhem. 76, Princ. i. 450.

2) Presents in ζ from a guttural stem.

325 20) ἄζω Soph. O. C. 134 (*οὐδὲν ἄζοντ'*), ἄζομαι A 21 and elsewhere in poetry. The final letter of the root is shown to have been γ by ἄγ-ος, ἀγ-νό-ς, ἄγ-ιο-ς and the Skt. *jaǵ* (Princ. i. 208).

21) βάζω poetical, I 58, βέβακται θ 408, ἐκβάξει Aesch. Ag. 498.

22) βρίζω Δ 223, ἀποβρίξαντες ι 151.

23) βύζω shriek, especially used of the cry of the owl (*βύας bubo*), ἔβυξε in late prose; probably of the same source as the βύκται ἄνεμοι (*βυκτάων ἀνέμων κατέδησε κέλευθα* κ 20).

24) γρύζω, to say γρῦ, utter a sound, from Aristophanes onwards, with γρύξομαι, ἔγρυξα (Clemm Stud. iii. 293). The form γρύσει in Aristot. Probl. 4, 2 seems from its meaning alone to be no connexion.

25) κλάζω, from Homer onwards (Π 429), the γ is established by κεκληγώς (B 222), ἔκλαγξα (A 46) etc.

26) κλώζειν to cluck, glocire, cp. κλώσσω above, p. 218, no. 8.

27) κράζω Aristoph. Equ. 287. The aorist ἀν-έκρᾰγον occurs in Homer (ξ 467), κέκρᾰγα, κεκράξομαι occur in the dramatists. The noun κραυγή, whence κραυγάζω. κραύγασος and the κραυγανάομαι mentioned on p. 183 point to a rt. κρυγ which was intensified to κραυγ, possibly even to a rt. κρυκ (Princ. ii. 148).

28) κρίζω Menander Mein. Com. iv. 295, κεκριγότες Aristoph. Av. 1521, but in Homer we find the fuller root κρικ κρίκε Π 470.

29) κρώζω croak, crocitare Aristoph. Aves 24, ἔκρωξας Arist. Lysistr. 506 κρωγμός.

30) λίζω a late present to the Homeric aor. λίγξε βιός (Δ 125) used by Nicander (*ἐπιλίζοντας οἴστούς* Herodian ii. 802). Cp. Lobeck Rhem. 79.

31) λύζω. Apparently the present-stem is all that occurs (Aristoph. Ach. 690), but the subst. λύγξ (stem λυγγ) and the present-form λυγγάνομαι mentioned on p. 180 put it beyond a doubt that there is a guttural at the bottom of the ζ. Pollux iv. 185 knows of λύττειν as well.

32) νίζω, from Homer onwards (Λ 830, ζ 224) by the side of νίψω
326 (τ 376), νίψατο (Π 230), ἄνιπτος (Z 266) and the present νίπτω discussed on p. 167. It is shown at Princ. i. 365 that what is apparently the rt. νιβ has arisen by labialism from *nig* (Skt. *niǵ*).[8]

33) πλάζω smite, strike out of the way, mislead, from Homer onwards (B 132, ε 389). The original meaning, by which πλάζω (possibly from *πλαγγ-jω) shows itself to be a by-form of πλήσσω, is most clearly to be seen in κῦμα προςπλάζον M 285 (cp. λ 583). In the aorists ἔπλαγξα, ἐπλάγχθην and in πλαγκτός, as in the Latin *plango*, the nasal is clearly seen, cp. also πλήγνυμι above, p. 112, and Princ. i. 345.

34) ῥέζω do (by-form ἔρδω), Boeot. ῥέδδω, almost exclusively poetical (B 400), fut. ῥέξω (λ 31), Aor. ἔρρεξα, ἔρεξα (I 453), ῥεχθέν (I 250), ἄρεκτος. At p. 204 we connected the rt. ϝεργ, with the by-form ϝρεγ explained by Siegismund Stud. v. 123, with the Zd. *varez*, and the pres.

[8] A trace of a πάζω is to be seen in ἀμ-πάζονται· ἀναπαύονται, ἀμπάξαι· παῦσαι Hesych., forms which can hardly have anything to do with ἐμπάζομαι. It is more likely that πάζω is related to παύω as ἄζω, dry, is to αὔω.

ῥέζω with the Zd. *verez-yâ-mi*. On the relation of ἔρδω (also ἕρδω) to ῥέζω cp. Princ. i. 222, ii. 258.[9]

35) ῥύζω bark, growl, which we compared above with the Lat. *rug-io*, is only known to us from the lexicographers (Pollux, Hesych.).

36) σίζω hiss, from Homer onwards (ι 394). ἔσιξα is first found in Paulus Silent., but σιγμός, σίξις are as early as Aristotle.

37) σπίζω cheep, used by Theophrastus and Aratus of the note of a bird called sometimes σπίνος and sometimes σπίγγος (cp. σπίζα finch).

38) στάζω. The oldest witness to the present is Hipponax fr. 57 Be.[3], στάξε, ἐνέστακται occur in Homer (Γ 39, β 271). Cp. σταγών.

39) στίζω, from Simonides C. onwards (fr. 78 Be.[3]) στίξω, ἔστιξα, στικτός. The γ comes out plainly in στιγεύς, στιγών, στιγμή, as also in the Lat. *-stinguo* (Princ. i. 265).

40) σφάζω, the older form for the Attic σφάττω (above, p. 219), δ 320.

41) σφύζω Plato Phaedr. 251, later σφύξαι, σφυγμός.

42) τρίζω, from Homer onwards (ω 5) with τετριγῶτας B 314, τετρί- 327
γει Ψ 714.

43) τρύζω, the same, i. 311, later ἔτρυξα.

44) φύζω, only mentioned by grammarians (Herodian ii. 265) as a present to the Homeric πεφυζότες. As the Lat. *fug-io* would be the exact counterpart of a Gk. φύζω, this form is probably not an invention but the real source of the above-mentioned isolated perfect, as of φύζα, φυζανικός, φυζαλέος.

45) φώζω, a rare by-form of φώγω, φώγνυμι roast, only found in Hippocr. and the comic poet Strattis (Meineke ii. 789, where it is written φῳζειν).

Of these verbs from stems which show the guttural a large number are imitations of natural sounds—including 26, as many as 15, i.e. nos. 21, 23, 24, 25, 26, 27, 28, 29, 30, 31, 35, 36, 37, 42, 43. Even such imitative verbs as are evidently based on an interjection or a noun-stem show, as we shall see later on, the same course of procedure. There is consequently the greatest probability that the following onomatopoetic words, for which we do not find any forms with γ ξ or χ, also come from a guttural stem.[1]

46) βράζω, used, according to a passage in Pollux v. 88 which is wanting in the best M.SS., of the growling of a bear, according to Hesych., in the meaning whine (ἠσυχῇ ὀδύρεσθαι).

47) γλάζω. In Hesych. Mor. Schmidt, on the ground of the alphabetical arrangement reads γλαγγάζει. But the Scholia on Theocr. i. 1 (p. 33, 17 ed. Ahrens) quote from Pindar: σαυτῷ μέλος γλάζεις.

48) ῥάζω, according to Photius like ῥύζω, bark, according to Hesych. ῥάζειν· τρώγειν, κυρίως ἐπὶ τῶν κυνῶν (perhaps 'scrunch'), μιμητικῶς ἐπὶ τοῦ ἤχου. The verses of Cratinus (Meineke ii. 33) are rather obscure (cp. the Skt. *râ-ja-ti* he barks).

[9] No instance has been adduced of the present ῥέζω in the meaning *dye*, but only of the aor. ῥέξαι, which is rendered by βάψαι, and from which come ῥέγος, ῥαγεύς and perhaps ῥῆγος Herodian ed. Lentz. ii. 577.

[1] Such conclusions as these are deceitful at the best, for ψίζεσθαι weep (ψιζομένη· κλαίουσα) shows by ἔψιδεν· ἔκλαυσεν and ψίνδεσθαι· κλαίειν that its stem ends in a dental.—This notice of this rare verb may suffice.

49) *σκύζω* as an onomatopoetic verb is distinct from no. 12, and is used according to Hesych. of the snarling of a dog (*σκύζουσιν· ἠσυχῇ ὑποφθέγγονται ὥσπερ κύνες*). Cp. *σκυζᾶν* Pollux v. 86.

3) Presents with undeterminable stems.

328 50) *ἄζω*, dry (trans.). *ἀζομένη* Δ 487, then in Hesiod and Alcaeus. Cp. *ἀζαλέος*. Clearly related to *αὔω*.

51) *βρύζω*, drink, only Archil. fr. 32 Be.[3]

52) *δίζω*, apparently belonging here, has been already discussed on p. 105 f.

53) *λάζομαι* as early as B 418 *λαζοίατο*, E 371 *ἐλάζετο*, only found in poets and in Hippocates, with the by-form *λάζυμαι* mentioned on p. 122, apparently related to the rt. *λαβ*.

54) *λίζω*, explained by Hesych. among other meanings by *παίζω*. Lobeck Rhem. 79 connects the verb with the *λάζω* mentioned on p. 223.

55) *μύζω*, suck, with the tense-formation of a derivative verb *μυζήσω*, *ἐμύζησα*, by-forms *μυζάω*, *μυζέω*, from Xenophon onwards.

56) *μύζω*, groan, murmur, Θ 457 *ἐπέμυξαν*, which reminds us of the Lat. *mugio*; the present occurs in Aristophanes, and *ἔμυσεν* is quoted from Hippocrates, so that the stem is undeterminable.

57) *ῥίζω*, only known from Hesychius's obscure gloss *ῥίζειν· τρώγειν, καίειν, μυστιλᾶσθαι, θηλάζειν*.

58) *σκάζω*, only in the present-stem in Homer (Λ 811) and late prose-writers. From prose of a very late date *σκασμός* is quoted, but this solitary indication of a form that does not belong to the present-stem is by no means enough to establish *σκαδ* as the verb-stem. The Skt. *khañj* points rather (Princ. i. 475) to a rt. *σκαγ*.

4) Reduplicating verbs

(cp. Fritzsche de reduplicatione Gr., Stud. vii.).

59) *ἀρράζω* (also written *ἀράζω*) and *ἀρρίζω* denote a cry uttered by a dog, which is not a bark, Pollux v. 86, on *ἀρρίζω* cp. Bekk. Anecd. iii. 1452. Cp. no. 48.

60) *βαβάζω*. *βαβάζειν· τὸ (μὴ) διηρθρωμένα λέγειν. ἔνιοι δὲ βοᾶν*. The *μὴ* is due to a conjecture. To this belongs *βιβάκτης*, which, among other meanings, has that of *κραύγασος*. Cp. no. 21. Another *βαβάζω*, perhaps related to *βαίνω*, may be discerned in the gloss *βαβάξαι· ὀρχήσασθαι, βαβάκτης· ὀρχηστής*.

329 61) *βιβάζω* is likewise of twofold origin, if Hipponax fr. 53 Be.[3] really wrote *ἐμβιβάξαντες*=*ἐμβοήσαντες*, as is stated in the E. M. (Schneider *ἐμβαβάξαντες*).—The *βιβάζω* which belongs to the rt. *βα* is used in a causative sense (otherwise *βιβάς*, *βιβάω* cp. p. 105) from Herodotus onwards with the fut. *βιβάσω*, *βιβῶ*, aor. *ἐβίβασα* etc.

62) *βωβύζειν· σαλπίζειν* Hesych.

63) *γογ-γύζω* and *γογγυσμός*, found in the N. T., are given by Phrynichus p. 358 as Ionisms. The rt. *γνγ* (Princ. i. 220) may be deduced from the Skt. *guñj* (Brugman Stud. vii. 211). The same change of a guttural to a dental stem as in *σκάζω*.

64) *ἐ-λε-λίζειν* shake, upheave (trans.): *μέγαν δ' ἐλέλιξεν Ὄλυμπον*

A 530, ἡ δ' ἐλελίχθη πᾶσα (ναῦς) μ 416, τετραορίας ἐλελίχθονος Pind. Pyth. 2, 4 is aptly compared by Fick Ztschr. xix. 252 with the Skt. *rēǵ* (*rḗǵāmi*) which in the active is exactly synonymous, and is used in just the same way to denote the shaking of the earth, and with the Goth. *laikan* spring, hop, which coincides with the use of the middle of the Sanskrit word. From the root λιγ then there came by the prefixing of an ε and reduplication the intensive form *ἐ-λε-λιγ-jω*. But this meaning does not suit those Homeric passages in which ἐλελίξαι means turn round, and ἐλελίξασθαι writhe, twist about. These belong to ἑλίσσω. There is a third ἐλελίζω which as an onomatopoetic verb ranks with ἀλαλάζω and ὀλολύζω. In these last three verbs the ζ is derivative.

65) καγκάζω or κᾰχάζω laugh (in Hesych. also κακχάζω). The second of the three forms occurs at Soph. Aj. 198 Dind., Ar. Eccl. 849, ἀνεκάγχασε at Plato Rep. 337, fut. καχάξῶ Theocr. 5, 142, by the side of καγχασμός, καχασμός, cp. καγχαλόωσι (Homer).

66) κακκάζειν, cackle (Hesych.), cp. Pollux v. 90.

67) καχλάζειν, of the sound made by a liquid, dash, gurgle Pind. Aesch., according to Hesych. also used of laughter.

68) κιχλίζω laugh (Aristoph.).

69) λαλάζω, λάλαζε· βόα Hesych. Anacr. fr. 90 Be.[3], λαλάξαντες· βοήσαντες, cp. λάλαξ, λαλαγή.

70) παφλάζω N 798, roar, heave (of water), more common in Aristophanes, later also used of stuttering, πάφλασμα.

71) πιππίζω cheep, also πιπίζω, Aristoph.

72) ποππύζω Aristoph. Vesp. 626 ποππυσμός.

73) τῑτίζω, Zenodotus's reading—rejected by Aristarchus—at B 314 330 (τῑτίζοντας) for τετριγῶτας. Aristarchus knew the verb however, and, according to the scholion of Aristonicus, held it to be suited only to the ordinary twittering, not to the frightened cry of sparrows.

74) τονθρύζω mutter, only in late poets (Oppian) and lexicographers, the commoner form is τονθορύζω (Aristoph.).[2]

On the numerous words in this list which denote the cries of animals copious information may be found in Wackernagel's Voces variae animantium Basel 1867, though the author has not referred to the valuable collection of words in Pollux v. 86.

Finally we may place here a word whose etymology is still obscure, i.e.

75) ἀσπαζομαι. The initial ἀ seems to be prothetic, like that of ἀΐσσω, ἀράσσω, though it certainly might be the remnant of reduplication, as in ἀρράζω. Düntzer Ztschr. xiii. 10 connects it with σπάω. In Homer there occurs only ἡσπάζοντο (Κ 542) by the side of ἀσπαστός, ἀσπασίως. The dental stem is established by these forms and the Attic ἀσπάσασθαι (Eurip. Xen.).

Taken together, the verbs which form the present in this fashion, and which are to all appearance primitive verbs, are shown by this review to be very numerous. There are in all 233, very many of them, it is true, but little used, and some few half obsolete. Out of these there are 21 presents which have kept an ι and 212 which show the effects left by the *j*. Under the latter head there are 26 presents in λλω, 31 in ρω,

[2] τωθάζειν jeer at, also θωτάζειν, can hardly be a reduplicated word. Cp. Lobeck Paralip. 47.

23 in *νω*, one stem in *κω*, 56 in *σσω*, and 75 in *ζω*. Of reduplicating verbs showing often an intensive or iterative meaning this class contains 37 : 7 in *λλω*, 5 in *ρω*, 6 in *νω*, 3 in *σσω*, and 16 in *ζω*. But this by no means completes the circle of presents of this formation. We referred on p. 147 to the probability that verbs like *θύω*, *λύω*, *φύω* have lost a *j*. Still this is not all; the vast tribe of derivative verbs all belong here, and for this reason we shall proceed to treat of them in an 'appendix' to the present chapter.

APPENDIX TO THE I-CLASS. 331

ON DENOMINATIVE VERBAL FORMATION.

THE same syllable *ja*, which is the basis of the widely-ramifying present-formation of the verbs just discussed, has to a very large extent served the purpose of making derivative verbs. In Sanskrit derivative verbs mostly follow the so-called tenth class, of which the present in the 1st sing. ends in *-ajā-mi*. It was clearly recognised by Bopp—and stated among other places in his Vgl. Gr. i.[2] 225 ff.—that to these verbs correspond the Greek verbs in *αω*, *εω*, *οω*, the Latin in *āre*, *ēre*, all the weak verbs of the Teutonic languages, among which the Gothic which have kept the *j* are the most instructive, and a large portion of Slavonic and Lithuanian verbs, among which the *j* is more or less widely spread. This view is advocated by Schleicher (Comp.[3] 340), Leo Meyer (Vergl. Gr. ii. 3), and Scherer (Zur Geschichte der deutschen Sprache p. 183), so that we shall not be far wrong in saying that the above-mentioned derivation of the most extensive class of derived verbs from the single primary form, which has survived in Sanskrit, is the view generally adopted by Comparative Philology.

This view has nevertheless not been without its opponents. Pott, in his Et. Forsch. ii.[2] 977, brings forward at great length the difficulties which stand in the way of 'making the various weak verbs of the Indo-Germanic languages *all* spring from *one* stalk—the Sanskrit 10th class.' All he really does however is to give expression to doubts and objections turning mainly on the various meanings associated with the various derivative formations in the several languages, and rightly calls attention to the fact that many such formations were 'afterbirths,' which did not take shape until they had reached the soil of the several languages. That on the other hand the *type* and starting-point for all the forms under discussion must be sought in these same Sanskrit 332 verbs, seems to me as clearly established after Pott's exhaustive investigation as before. And this surely is all that was held by anyone. For the assertion that the Greeks formed no verb in *εω* or *οω*, the Romans none in *āre*, *ēre*, that had not its exact prototype from that identical stem in primitive Indo-Germanic, is too preposterous to have been made by any reasonable scholar. It was necessary, no doubt, to establish and elucidate more clearly the ramification maintained by Bopp, and in so doing to bestow fitting attention upon the meaning of these formations. We may say at once that this latter point throws but slight difficulty in the way of Bopp's theory, for the reason that the Sanskrit verbs in *-ajāmi*, though set down for the most part as 'causatives' in our grammars and lexicons, in reality often show quite a different meaning, and that of just as various kinds as are shown by the derivative verbs in European languages. For instance, the Skt. *dharshájā-mi* venture on something, is in no way different from *θαρσέω*, and *ṛghājā-mi* shake, rage may even in

meaning be compared without difficulty with ὀρχέομαι, while the really causative *smarājā-mi* make to think, call to mind, agrees with the Goth. *mêrjan* and the Latin reduplicated *memorāre*. The best review of the manifold Indian formations is to be found in Delbrück p. 200 ff.

The prevailing view of the origin of the derivatives has of late been attacked, in particular by Corssen, on a point of importance. In his Aussprache ii.[2] 733, while admitting the connexion with the Sanskrit verbs in *-ajā-mi* in the case of the Latin verbs of the *e*- and *i*-conjugation, he emphatically denies it in that of the *a*-conjugation. On p. 736 he leaves it an open question whether the Greek verbs in *-αω* are also to be excluded from this connexion. The formal and distinct contradiction of one of the main points of the theory on the part of so distinguished a scholar compels me to examine, however briefly, both the grounds he alleges against Bopp's view, and the theory which he himself propounds. Corssen's main objection to what till then was the prevailing doctrine is this,—that it is improbable that the same formation should have been transformed in so many different ways—that the old *ajā-mi* should appear
333 now as *-ao*, now as *-eo*, now as *-io*. This objection, if valid, would serve equally to disprove the original identity of the Greek verbs in *-αω*, *-οω*, and *-εω* which so often take each other's places, as also the original identity of the three Gothic weak conjugations, and the same principle might even excite doubts as to that of the Latin verbs in *-eo* and *-io*. Still, if the same suffix *-tar* has survived in Greek as *-τερ* (*πατερ*) and *-τορ* (*ῥητορ*), *-tār* as *-τωρ* (*μήστωρ*, Lat. *datōr*) and *-τηρ* (*δοτήρ*), if the suffix *-as* appears sometimes as *-os* (*-us*) e.g. in *decus*, *decor-is*, sometimes as *-es* (*-os*) e.g. in *genus*, *gener-is*, if Corssen himself regards not only these suffixes, but also *-on* and *-en* (*-in*), *-ont* and *-ent*, *-aio*, and *-eio* as in each case essentially the same, this is, I think, a sufficient disproof of the applicability of this principle in general, and it even proves unmistakably on the other hand that what were originally purely phonetic transformations have not unfrequently led to the growth from one and the same primary form, of different secondary forms, which have then, in the course of time, won themselves a separate existence.

Objection is taken in the second place to the disappearance of the *j* between the two *a*-sounds. 'Neither in Latin,' says Corssen, 'nor in Oscan does *i* or *j* ever fall out between two *a*'s without leaving a trace, and allowing the *a*–*a* afterwards to run together into *ā*.' This may as a matter of fact be quite true; still I do not think there is much to be gained by phonetic rules which are of purely theoretical construction, and not deduced from a series of given cases. How often, I should like to know, was an opportunity given in the Italian language for a *j* to fall out between two *a*'s? Besides, the assumption that those who identify the Latin *doma-t* with the Skt. *damája-ti* hold that an *i* fell out between two *a*'s, is a mistaken one. For it is certain that the *a* of the thematic vowel (cp. p. 145) had split up into *e* and *o* long before the *j* fell out. The uncontracted Greek forms make this as clear as can be. We here have actually occurring forms like δαμάει, and can consequently have no hesitation in assuming a middle form **damajet* between *damaja-ti* and *domāt*. The *j*, then, has fallen out between *a* and *e*. Now of this disappearance *aes* = Skt. *ájas* furnishes
334 us with an undoubted instance, for in this case the middle form *aës* has actually survived in *aëneus* = *aës-neu-s* (Umbr. *ahesnes* Corssen i. 103). The 1st sing. *domô* has evidently been contracted from *doma-ô*. Why the spirant, which (cp. Corssen i. 308) so readily falls out between vowels—e.g. in *Pompēus* by the side

of *Pompējus*, in *aureu-s* by the side of χρύσειος and the Skt. *-ēja-s*, in *quadrī-ga* for *quadri-juga*—should have been inviolably protected from falling away by the very fact that a long *a* went before it, I cannot conceive. In the case also of the genitives in *ās* in Old Latin, Umbrian, and Oscan (*escās*, Osc. *moltās*) I still think it probable, in spite of what Corssen (i.² 770) urges in behalf of a different view, that between the *ā* at the end of the stem and that of the genitive termination, there has been lost the *j* which survives in the Skt. *-ā-j-ās*. Where else can the *a* be said to manifest its power of defending the *j* from extinction? With *Māja*, *mājor*, *ājo* the case is quite a different one; here the *j* has come from *gj* and was probably pronounced differently, as in *pējor* and other forms.

A further objection is expressed by Corssen as follows: 'Among the superabundance of Latin verbs of this conjugation, there are hardly any which would correspond in root with a Greek verb in *-aω* or a Sanskrit verb in *-ajāmi*.' In his note he mentions the verbs *bovare* (*reboare*), *comare*, *cacare* compared by Leo Meyer with βοᾶν, κομᾶν, κακκᾶν, as the only three instances of such a correspondence, and tries to get rid of the Latin verbs by showing them to be borrowed from the Greek. Whether he was right in so regarding them I will here leave an open question. But beside these verbs there are a large number of undoubtedly genuine Latin verbs which can without any etymological difficulty be compared with Sanskrit verbs in *ajā-mi*, Greek verbs in *-aω*, and Teutonic weak verbs. It may suffice here to enumerate the following 11 (cp. below p. 236):

Skt. *dhūmājā-mi* (smoke, steam)	Lat. *fūmare*	O. H. G. *toumen* (steam)	
Skt. *sādājā-mi* (set)	Lat. *sēdāre*	Goth. *satjan* (set, plant)	Ch.-Sl. *sad-i-ti* (plant) O. Ir. *in-sadai-m* (*jacio*)
Skt. *svanājā-mi* (sound)	Lat. *sonāre*		
Skt. *sthāpājā-mi* (fix firmly)	Lat. *stipāre*		335
Gk. *νεάω* (by the side of *νεάζω νεόω*)	Lat. *novāre*	Goth. (*ana*)-*niujan*	O. H. G. *niwôn*
Gk. *ὀγκάομαι* (bray, of asses)	Lat. *uncāre* (roar, of bears)		
Gk. *λοιβάομαι*	Lat. *lībāre*		
Gk. *φωρᾶν* (to catch a thief)	Lat. *fūrāri* (to be a thief)		
Gk. *στραγγαλᾶν*	Lat. *strangulāre*		
	Lat. *piscāri*	Goth. *fiskôn*	
	Lat. *in-clināre*	O. Sax. *hlinēn*	A. S. *hlinian*

If we include the Greek verbs in *oω* and *aζω*, which, as we shall see directly, are of the same origin, we get a far greater number of corresponding formations. This, it seems to me, is a sufficient confutation of this objection, as of all that Corssen has advanced against Bopp's theory.

Corssen's own view is that the *ā* of the *a*-conjugation corresponds to the final letter of noun-stems, and never had a *j* after it. In deriving *multā-re* from *multā* he supposes that the thematic vowel was added immediately to the noun-stem, that, e.g., *multā-t* stands for an original *multā-at* or *multā-e-t*. But the addition of the thematic vowel to the already established vowel at the end of the stem, is phonetically improbable, and is without actual precedent. For the number of forms in which two *a*-sounds have stood side by side from the beginning is almost a vanishing quantity, and the etymological rule, that wherever two vowels of the kind come into immediate proximity the chances are that a consonant has fallen out between them has always been found to hold good. Corssen's Sanskrit instances prove nothing. A form *mālā-ti* he crowns from *mâlā* garland is nowhere to be found in the Pet. Dict., for the reason, as Delbrück tells me, that it is exclusively confined to the tolerably late subsidiary grammatical work Siddhānta-Kāumudī, a book which contains many grammarians' fancies. That this very singular form was actually used we cannot imagine for a moment, the real causative from *mālā* being *mālá-ja-ti* (Pet.
336 Dict.). And even if we are to believe that forms of the kind were tried in Sanskrit, it would be hard to prove that the *ā* before the personal termination in this language was the product of an *ā* and an added thematic vowel. Anyhow then it is a great mistake to draw any conclusions from such a form as to the state of things in primitive Indo-Germanic times. There are denominatives in Sanskrit, with the verb-stem the same as the noun-stem, but the last letter of the stem is always *short*, e.g. *lōhitā-ti* he is red, from *lṓhita*. But even such forms are not by any means of early growth, and there is very little of the kind in the Vedas (Delbrück p. 217). The utmost to be gained from the analogy of these forms would be the vindication of a Latin **novēre* from *novo*, **piēre* from *pio*, a kind of formation which is of strictly isolated occurrence in Greek, e.g. *θέρμετο* θ 437, *δείλετο* Aristarchus at η 289. In these very rare formations the *short* final vowel of the noun-stem is taken as it stands to make the thematic vowel. Whether such forms are imitations of the same types as we met with under the *t*-class and the nasal class (pp. 164 and 173 f.), or are of quite a new stamp, may be left an open question. In no case have they anything whatever to do with the questionable verbs characterised by long vowels. The Greek *τιμάω* clearly shows, besides the *long* final vowel of the stem, the vowel which we call thematic as well. For such a union as this we shall look in vain elsewhere. For even in the Greek verbs in *νω*, *ενω*, and the Latin in *uo* like *acu-o*, *statu-o* where such a union has apparently taken place, we shall find (cp. p. 246 f. below) good reason to assume the loss of a *j*.[3]

A more thorough-going attack has of late been made upon Bopp's view by
337 Savelsberg, who in the Ztschr. xxi. in his 'Umbrische Studien' not only denies that there is any connexion between Italian derivative verbs and the Sanskrit verbs in *-ajāmi*, holding instead, on the ground of a few Old-Italian verbs of equivocal

[3] Corssen has in his last work (p. 493 ff.) made another effort to vindicate his theory. He alleges, as far as I can see, no new arguments, and seems to ignore the most undeniable facts in the history of language. He ignores the loss of the *ι* in the ordinary Greek *μεθύω* which is clearly established by the Aeolic *μεθυίω*, and the other traces I have pointed out of an *ι* in Greek derivative verbs, as also the fact that the contraction of a Latin *aë* to *ā*, which he denies, occurs in *Sāturnus* by the side of an older *Saëturnus* (on which head an untenable conjecture is advanced at i. 417), in *mālīs* = *ma-velīs*, and in *amārunt* for *amāv-ĕrunt*. (Cp. Corssen himself 'Aussprache,' i.² 317.)

meaning and obscure form, such e.g. as the Osc. *tribaraka-v-um*, that these have lost a *v*, but even gives expression on p. 197 to the like denial for one and all of the Greek verbs of the same description. I do not imagine that this view is shared in by many and I therefore content myself here with noticing it in passing, the more so, that I believe that the whole of the following exposition will place in the clearest light the close connexion of the Graeco-Italic derivative verbs with the Sanskrit verbs of the 10th class and all kindred formations in the related languages.

We will proceed then, in spite of these objections, to derive the Greek contracted verbs from the verbs in *-ajā-mi*. The next question that arises is, what are we to say about the origin of these verbs in *-ajā-mi*? Two explanations of them have been advanced. According to one, which follows in the steps of the Indian grammarians, the element which is the characteristic of the verbs of the 10th class is properly speaking *i*, and consequently, e.g. in the case of the Skt. *vēdá-jā-mi* I make to know, the stem to be given is *vēd-i*, and the *aja* is an after-growth from this, due to an addition of sound (Guna) and the affixed thematic vowel. This view has been developed most consistently by Grassmann Ztschr. xi. 81 ff. It compels Grassmann altogether to separate verbs which, like *namas-já-mi* I honour, from *námas* reverence, clearly show an added *-ja*, from those in *-ajā-mi*, as also to deny that any connexion exists between the first *a* in *-ajā-mi* and the final *a* of noun-stems. In Sanskrit this division into two classes is apparently favoured by the difference of the accent. The verbs of the tenth class, the so-called causatives, accent the *a* before the syllable *-ja*; *vēdá-ja-ti*, while the others accent the *-ja* itself: *dēva-já-ti* he serves the gods. But Delbrück (p. 209) shows that 'the partition between the two classes is not free from gaps.' The following verbs e.g. are unquestionably denominative: *arthá-jē* strive, desire, from *ártha-s* aim, advantage, *mantrá-jē* deliberate, from *mantra-s* counsel, *mṛgá-jē* hunt, which in meaning is to be referred in just the same way 338
to *mṛgá-s* gazelle, as *θηρ-άω* is to *θήρ*. Such comparisons as these give the greater probability to the second view, which is especially represented by Schleicher Comp.[3] 341 and Leo Meyer ii. 19, according to which the first *a* is identical with the final *a* of a large number of noun-stems. We cannot, it is true, find a noun-stem in *a* for every verb in *ajā-mi*. But there is, on the one side, nothing to hinder us from assuming that there were large numbers of stems of this character at an early period, while on the other, it was precisely in the formation of derivatives that the force of analogy procured for a form, when once made, a wide extension of its original domain. The syllable *-ja* however is in that case clearly the same which we have found discharging on so large a scale the function of a present expansion. It might be objected that there is an important difference here, that, whereas in the fourth class of Sanskrit verbs the syllable *-ja* is confined to the present stem, in the tenth it extends, along with the preceding *a*, through all tenses. Greek itself however can show us that this difference has nothing to do with the special nature of the denominative verbs. Numerous denominative verbs such as e.g. *ποικίλλω* from *ποικιλο* (for *ποικιλ-jω*), *θαυμαίνω* from *θαυμαν* (for *θαυμαν-jω*), *φυλάσσω* from *φυλακ* (for *φυλακ-jω*) have this addition only in the present-stem, and form the remaining tenses straight from the unexpanded stem. We have repeatedly seen that the general relation between present-stem and verb-stem is not rigidly determined by an impassable barrier, and we may therefore well assume that the habit of regarding the syllables *aja*, like their late phonetic representatives in Greek

ā, *η*, *ω*, as a fixed element in the stem was only introduced gradually as time went on. In the Vedas forms like the late future *kŏraj-ishjā-mi* and the like (Delbrück p. 184) are rare. Nor is it unheard of in Greek, and still less in Latin, that derived contracted verbs should have part of their stem movable: e.g. γοάω, aor. *ἔ-γο-ο-ν*, Lat. *domā-re* pf. *dom-ui*, *fricā-re* part. *fric-tu-s*. This difference then can hardly shake us in the conviction that this syllable *-ja* was the main element in all derivative formation for all the languages of our stock.
339 If now in the verbs in *ajā-mi* the vowel which precedes this syllable was from the first the final vowel of the noun-stem which is the basis of the verb, it is easy to see how the bond between the final letters of the stem and the special form assumed by the derived verbs should never have been broken. What is more, we shall see in this very relation, as our more detailed examination will show us later on, the main explanation of what is at first sight so surprising a multiplicity in the forms assumed by this widely-ramifying class.

The Greek derived verbs fall into *three* classes. The *first* consists of those which come from vowel-stems and keep the vowel, e.g. τιμά-ω, δηλό-ω, μηνί-ω, δακρύ-ω, ἀριστεύ-ω. The *second* comprises the verbs which come from consonantal stems, e.g. μελαίνω, i.e. μελαν-jω, τεκμαίρομαι, i.e. τεκμαρ-jο-μαι, κηρύσσω i.e. κηρυκ-jω. The *third* comprises those whose final vowel has been knocked off before the derivative termination, syncopated vowel-stems as they might be called, e.g., καθαίρω for καθαρ-jω from καθαρο, ἀγγελλω for ἀγγελ-jω from ἀγγελο, φαρμάσσω for φαρμακ-jω from φαρμακο. The third class is obviously very nearly connected with the second, and as the phonetic processes are the same in both, it is not always easy to determine whether the noun-stem which forms the base of the verb had a vowel once, or always ended in a consonant. For these reasons we shall join the second and third classes together and arrange the verbs in *two* main divisions, the *first* in which the sound before the derivative suffix *-ja* is a vowel, the *second* in which it is a consonant. Briefly the first main division may be called the vocalic and the second the consonantal. No doubt each of these classes has been developed beyond its original domain, and hence the growing force of analogy is an element of importance which must be taken into account throughout the whole of this investigation.

I. VOCALIC DIVISION.

1. Verbs in -αω, -αιω, -αζω.

It is an important fact, which meets us when dealing with the question of the connexion of the contracted verbs with the Sanskrit verbs in *ajā-mi*, that
340 we can still point to some traces of the *j* at this place in Greek. I have called attention at Stud. iii. 191 to the remains of derived verbs which kept the *ι*. The *ι* has survived after an *a* in παλαίω (Boeot. παλήω) which it can hardly be doubted is a denominative formed from the stem παλα (ἡ πάλη wrestling), especially as we find an aorist ἐπάλησα in Hdt. viii. 21 (παλήσειε), though with a special modification of meaning. Other present forms, already discussed by Lobeck on Buttm. Ausf. Gr. ii.[2] 59, showing an *αι* in derivative verbs are βιαίω (Hesych. = βιάζω), διχαίω (Hesych. = διχάζω), χαλαίω by the side of χαλάω, σταλαίω by the side of σταλάω and σταλάζω, ἰσαίω (Aratus = ἰσάζω), the last of which is confirmed by Hesychius's Boeotian ἰσήϊ ἰσάζει, for a Boeotian *η* is without exception the representative of an ordinary Greek *αι* (cp. above p. 60 f.). The Homeric παραφθαίησι discussed on p. 39 f., would find a place in this list if we were to

follow Johannes Schmidt in taking it as a conjunctive, as also πταίω, which in a causative meaning, I make to stumble, is aptly compared by Fick i.[3] 658 with the Skt. *pātá-jā-mi* the causative from *pat* fall. A further case in point is that of the Lesbian Aeolic μαχαί-τα-ς = μαχητής (Alcaeus fr. 33 Be.[3]), in as far as it points to a *μαχαίω. Other words, some of which have been mentioned above (ἀγαίομαι p. 118, κέραιε p. 120, μιμναίσκω p. 190), we will pass over here. In all these cases then the ι represents the original *j* after an *a* in exactly the same way as in the derivative adjectives in -αιο-ς e.g. ἀρχα-ῖο-ς, κορυφα-ῖο-ς as compared with the Skt. *êja-s* i.e. *a-ja-s* e.g. *pâurushēja-s* coming from man (*purusha*). These forms come nearest to the Gothic weak verb-stems in -*ai*. If, e.g. we are entitled to conjecture that in the first part of poetical compounds like ταλαί-φρων, ταλαί-μοχθο-ς there is likewise the remnant of an old verb *ταλαίω as present to ἔ-τλη-ν, ἐ-τάλασσα, τετλάναι, this verb would correspond exactly to the Goth. *thulai-th* he endures (inf. *thulan*). Perhaps too Leo Meyer (Goth. Sprache p. 683) is right in comparing the Skt. *tulájā-mi* weigh, lift, and the Latin *tollo* is perhaps another parallel, which may be explained to come from **tol-jo* for **tola-jo*. Savelsberg (Ztschr. xxi. 200), who appeals to Thiersch, recommends that we should regard the -αι in the above-mentioned Greek words as a way of lengthening an *a*; but this amounts to abandoning all attempt at a 341
real explanation.

The original *j* is preserved in another form in the verbs in -ζω. That the ζ is to be regarded here as the representative of the *j* was the view held by Bopp, who sets the verbs in -αζω along with those in -αω, -οω, and -εω in the same class as the Sanskrit verbs in -*ajāmi*. The representation of an old *j* by ζ has been discussed by me at length in my Principles ii. 263 ff., and I there call special attention to the fact that many verbs have presents in both -αω and -αζω as a strong argument that the two forms had a common origin. I will content myself here with enumerating the verbs in -αω which have presents in -αζω as well, or which have forms from other tense-stems which would naturally accompany such presents. There are the following 18, of which as many as 10 show the twofold present in Homer:

ἀγαπάω (Hom.)	ἀγαπάζω (Hom.)
ἀγοράομαι (Il.)	ἀγοράζω (Hdt.)
ἀνιάω (Hom.)	ἀνιάζω (Hom.)
ἀντιόω, ἀντιάαν (Hom.)	ἀντιάσω, ἀντιάσαντα (Hom.)
ἁρπῶμαι (Hesych.)	ἁρπάζω
ἀτῑμάω (Hom.)[4]	ἀτιμάζω (Hom.)
βιάω, βεβίηκε (Hom.)	βιάζω (Hom.)
γελάω	Aor. ἐγελαξε (Theocr.)
ἐπι-δικατό-ς (Stud. iii. 189)	δικάζω
προς-δοκάω	δοκάζω (Sophron)
εἰλυφόων (Hom.)	εἰλῠφάζει (Hom.)
εὔνησα, εὐνηθῆναι (Hom.)	εὐνάζεσθαι (Hom.)

[4] Nauck Mélanges iv. 38 ff. will not admit ἀτιμᾶν in Homer and calls it an 'erroneous form.' Cp. Euripid. Stud. ii. 179. It is questionable though whether ἀτιμᾶν stands on the same footing as the undoubtedly anomalous compounds like δυς-θνήσκειν which are there discussed. As the negative of τιμᾶν ἀτιμᾶν would no doubt be 'erroneous,' but not as a denominative from ἄτιμος. Cf. ἀσχαλάαν from *ἀ-σχαλο-ς, κακοδαιμονᾶν (Aristoph.) from κακοδαίμων, beside δαιμονᾶν (Aeschylus), and ἀνομοιοῦν (Plato) beside ὁμοιοῦν.

ἰσάσκετο (Ω 607)	*ἰσάζω* (Hom.)
νεάω (*νεόω*)	*νεάζω*
οὔτᾰε, οὔτησα (Hom.)	*οὐτάζω, οὔτασται* (Hom.)
πειράω, πειρηθῆναι (Hom.)	*πειράζω* (Hom.)
σχᾶν (Aristoph.)	*σχάζω*
χιμᾶν · ῥιγοῦν (Hesych.)	*χιμάζειν · τὸν χειμῶνα διάγειν* (Hesych.)

342 We have beside these to consider the whole class of frequentatives in *-τάω* which have by-forms in *-τάζω*. These verbs are clearly identical in formation with the Latin frequentatives in *-tare* (Leo Meyer Vgl. Gr. ii. 10). *ναιετάω* may be compared for its meaning with the Lat. *habitāre*, as also *μελετάω* with the Lat. *meditari*, *σκιρτᾶν* bears to *σκαίρειν* the same relation as that of *saltare* to *salire*, *λαμπετᾶν* (Hom. *λαμπετόωντι*) to *λάμπειν* that of *cantare* to *canere*. We may compare also *εὐχετάασθαι* (Hom.), *ἐρωτᾶν*, *ἀερτᾶν* (*ἀρτᾶν*) *pensare* by the side of *ἀείρειν pendere*. *ἰτη-τέον* is to be derived from an **ἰτάω*, identical with the Lat. *itā-re*, and now supported by the Elic *ἐπ-αν-ιτα-κώρ* i.e. **ἐπανιτηκώς* (the Damocrates inscription, Archaeol. Zeitung 1876, cp. *ἐξ-ίτη-λο-ς*). From the point of view of Greek, the natural thing is to derive the majority of these verbs from masculine stems in *-τα* —*ναιετά-ω* from the stem *ναιετα-* etc. But the Latin verbs have no such corresponding nouns, and if we want to maintain them to be of a similar origin we must assume that nouns of this kind survived in these derivatives and nowhere else.

Both Greek and Latin would admit of the derivation from verbal-adjectives in *-το*, and most of the Latin verbs are found along with such adjectives. In any case the Graeco-Italic verb-stems in *-ta* provide us with a fresh argument for the identity which I believe to exist between the Greek and Latin *a*-conjugation. Now several of the Greek verbs in *-ταω* have by-forms in *-ταζω*, some of which are of great antiquity: e.g. *ἑλκυστάζω*, which is related to *ἑλκύω*, *ἑλκύζω* as *tractare* to *trahere*, *ῥυστάζω* by the side of *ἐρύω*, *ἀλυκτάζω* (Hdt.) by the side of the Homeric *ἀλαλύκτημαι*, *ἀγυρτάζω* beg (Od.) by the side of *ἀγείρω*, *ῥιπτάζω* (Il.) which bears to *ῥίπτω* exactly the same relation as that of *jactare* to *jacere*, with the iterative *ῥίπτασκον* O 23, which points to a **ῥιπτάω*, *ὀνοτάζω* by the side of *ὄνομαι*, *οἰνοποτάζειν* by the side of *ποτη-τύ-ς* (Hesych.) and the Lat. *potare*. Hesychius has also *δροκτάζεις · περιβλέπεις*, which bears to *δέρκομαι* the same relation as that of *spectare* to **specere*, *εὐκτάζου · εὔχου* which is clearly nothing but a by-form of *εὐχετάασθαι*, *ἐκύπταζον · ἔκυπτον* like *cubitare* by the side of *cubare*, *φερτάζει · φέρει* like *gestare* by the side of *gerere*, *νευσταζω*
343 (Hom.) and *νυστάζω* (Plato) by the side of *νεύω* like the Lat. *nūtare* by the side of *nuere*, *φαντάζω* by the side of *φαίνω* like *ostentare* beside *ostendere*. In one or two cases the Greek *-ταω* seems to have become weakened to *-τεω*, as in *ῥιπτέω*. Verbs in *-τιζω* too, like *πειρητίζω*, will be found to be related.

These formations prove, as clearly as anything can be proved, that the terminations *-αω* and *-αζω* are identical. What else could have produced this two-fold formation if it was not such identity? It is obvious that this identity further entitles us, when we find verbs in *-αζω*, which are not frequentatives, of the same root as Latin verbs in *-are*, to treat them as identically the same verbs, and thus to identify e.g. *τυρβάζειν* with the synonymous *turbare*, *χειμάζειν*, which among other meanings has that of to pass the winter, with *hiemare* which means this only, *διπλάζειν* with *duplare*, and even *δικάζειν* (Lacon. *ἐπιδικατός*) with *dicare*, for both come from the same noun-stem *dika* way, manner, which

in Greek has settled down to the special meaning of the right way, law, right. How impossible it is to derive the ζ of the forms above mentioned from stems in -δ (-αδ) or from the analogy of such stems, as some have tried to do, is made sufficiently clear by the comparisons made above, but it is put beyond a doubt by the numerous verbs in -ζω denoting sounds which are derived from interjections (Lobeck Rhem. 216) like ἀλαλάζω (ἀλαλά, ἀλαλή), αἰάζω (αἰαί), βαΰζω or βαύζω (βαῦ), γρύζω, εὐάζω (εὖα), ἰύζω, οἰζω, οἰμώζω (οἴμοι), φεύζω (Aesch. Ag. 1307 ΚΑ. φεῦ φεῦ. ΧΟ. τί τοῦτ' ἔφευξας ;), ὤζω. There is not an atom of probability that such verbs have been formed on the analogy of noun-stems in δ or γ. We may also learn from them that the guttural which appears outside the present tense need not belong to the root, but is often, like the ζ of the present, to be regarded as the representative of the old *j*.

The phonetic side of this question I pass over here on purpose, as, besides the above-mentioned passage in the Principles, I have given it a special discussion at Studien ii. p. 185 ff. The splitting up of a single original sound into several is, as we saw above on p. 230, a common phenomenon in language. It was in this way quite possible that, in early times a distinction should arise between a *j* which inclined to a vowel, and hence was easily volatilized between two vowels, and a thicker *j* which was almost pronounced like *jj*, which afterwards, 344
like the initial of the Skt. *jugá-m*, Lat. *jugu-m*, Gk. ζυγό-ν produced a *d* before itself, and from this *dj* a ζ. It might be imagined that the choice between the two paths depended on the quantity of the preceding *a*-sound, in the same way as in Sanskrit we find two forms of verbs in *ājā-mi* e.g. *aghājāmi* threaten from *aghá-s* bad, and *vīrājatē* behave oneself like a man from *vīrā-s* man. But on the one hand this parallel would give us no help in the case of the verbs in -ιζω by the side of -εω formed from *o*-stems, because we can hardly imagine these to have had a vowel which was always long, while on the other hand it is more probable that the twofold Indian formation in point finds its counterpart rather in the interchange between *a* as the representative of the long *a* and an *e*-sound which became later an *i*-sound, as the representative of the short *a*. It would be as hard to find a definite and consistent explanation of the twofold forms, as for the greater multiplicity of vowel sounds in late linguistic periods as contrasted with the greater simplicity of earlier times, or for the threefold forms in the Teutonic and particularly Gothic weak conjugation.

As regards the relation of the verbs in -αω and -αζω to the stems from which they come, it appears (cp. Leo Meyer Vergl. Gr. ii. 6) that the number of the verbs in -αω which come from stems in -*a*, like αἰτιάομαι, ἀρετάω, αὐδάω, βροντάω, διψάω, ἡβάω, νικάω, ὁρμάω, σιγάω, σκιάω, τολμάω is very considerable. Far less numerous are those from stems in *o*, like ἀντιάω, ᾽ἀριστάω, ἱεράομαι, νεάω, and still rarer the derivatives from other stems, like ἰχθυάω, νεμεσσάω, φυσιάω, in the case of some of which last it is not impossible that feminine substantives like *ἰχθυα (cp. θήρα) *νεμεσια (cp. θυσία) were the immediate antecedents of the verbs. In the case of the verbs in -αζω the relation is somewhat different. A considerable proportion, such as αἰχμάζω (cp. αἰχμητή-ς), αὐγάζομαι, δικάζω, εἰλαπινάζω, σκοπιάζω (Hom., late poets have σκοπιητής), point to *a*-stems, but there are almost as many from *o*-stems, such as ἑτοιμάζω, λιθάζω, σηκάζω, (*saepire*), μετριάζω, δοκιμάζω, τοξάζομαι. Along with the latter may probably be classed the verbs in -σκαζω already mentioned among the inchoatives on p. 189, such as ἀλυσκάζω, ἠλασκάζω, πτωσκάζω, in so far as they are based on noun-stems in -σκο. Besides these we have derivatives from stems in μα(τ) 345

like ὀνομάζω, θαυμάζω, χειμάζω, in which the *a* must likewise have had its origin in the stems from which they were derived. Beyond these there are not many verbs in -αζω, and these are mostly to be explained on simple analogies.

On the whole then it appears that in this particular class of verbs it is impossible not to see that the *a*-sound corresponds to the final letter of the stems from which they are derived. The substitution of *a* for *o* is of course to be attributed to original identity of the two vowels. Consequently the *a* of ἀντιάω and μετριάζω stands on the same footing as that of Ταλθυβιά-δη-ς, and Πελοποννησια-κό-ς.

2. Verbs in -οω, -οιω, -οζω.

It is possible that this very sense of the connexion between the vowel that distinguishes the conjugation and the final letter of the stem from which the verb is derived, which has been noticeable hitherto, was what led to the formation of an *o*-conjugation by the side of an *a*-conjugation. In my essay 'Ueber die Spaltung des A-Lauts' (Ber. der K. sächs. Ges. d. Wissensch. 1864) I believe I have shown that the *o*-sound took its place beside the *a*-sound later than the *e*-sound. There was therefore probably a time in which the Greeks had verbs in -αω and verbs in -εω as two distinct classes, but none in -οω as distinguished from -αω.

The Gothic *o*-conjugation corresponds to both classes at once, inasmuch as *ô* is the representative of *ā*, and is presumably to be compared with the Slavo-Lettic *a*-conjugation (e.g. Ch.-Sl. *dĕla-jǫ* work) and the Irish verbs of the second series in Zeuss[2] 434 (e.g. *carai-m* I love). Though Latin, as I have pointed out in the Symbola philologorum Bonnensium i. p. 274, is not altogether destitute of traces of a like formation, among which the most unmistakable is *aegrōtus*, which is formed in exactly the same way as ἰσωτός, δηλωτός, speaking generally we may say that the far more numerous Latin *a*-conjugation includes the verbs which in Greek end in -οω, so that e.g. ἀνεμόω in the sense of inflate coincides entirely with *animāre*, ζυγόω with *jugāre*, λειόω with *lēvāre*, λοξόω with *luxāre*, ὁμαλόω with *simulāre*, and to the Lat. *novāre* corresponds, not only νεάω and
346 νεάζω which have been compared with it above, but νεόω as well. Herein we may discern a fresh bond of union between Latin and Greek derivative formation.

It is possible that it was in the lively sense of the connexion of the derived verbs with the final letters of noun-stems that brought about the desire for verbs in -οω beside those in -αω, and that in a relatively late linguistic period. It accords with this view that the verbs in -οω come to a very large extent from stems in -ο, as e.g. βιόω, γυμνόω, ἐεδνόω, κακόω, χολοῦμαι, μονόω, ὀρθόω. There are also, it is true, some which, like κορυφόω, ζημιόω, ῥιζόω, γεφυρόω, stand by the side of stems in -ι, and a still smaller number from more out-of-the-way stems, such as ῥιγόω, γουνοῦμαι, στομόω, πυρόω, some of which may probably be explained by the fact that the noun had two different stems. It is worth noticing, however, that, as Leo Meyer Vergl. Gr. ii. p. 34 has shown, the exceptions to the rule are *very* rare in Homer. Though there are more than forty verbs from *o*-stems there are only seven from others.

There was once a *j* here too, and the verbs in -οω show some traces, though only faint ones, of this letter. The *j* has survived (Stud. iii. 193) as ι in ἁρμοί-ματα · ἀρτύματα in Hesychius and in the Homeric κυδοι-μό-ς, which can hardly be explained otherwise than as coming from an obsolete *κυδοίω, and

perhaps also in ἕτοι-μο-ς. There are only two verbs in -οζω, ἁρμόζω (from Homer onwards) and δεσπόζω. The former can hardly be anything but a denominative, either from the stem ἁρ-μο (ἁρμό-ς), which does not occur before Sophocles, though its adverbialised locative ἁρμοῖ just, just now (Aesch.), looks as if the stem were an old one, or else from the stem ἁρμον, which survives only in the derivatives Ἁρμον-ίδη-ς (Ε 60), ἁρμον-ία, ἁρμον-ικό-ς, and in the compound βητ-άρμων (Θ 250)—in the last word with the original spiritus lenis—and comes very near to the stem of the Homeric ἅρμα team. There is in any case no reason why we should not assume the same relation between the ζ of ἁρμόζω and the ι of the above-mentioned ἁρμοίματα as between the ζ of the verbs in -αζω and the ι of the verbs in -αιω. It should be noticed moreover that outside the present Homer knows only ἤρμοσε and that the older Attics show a preference for the dental inflexion (ἥρμοσται, ἁρμοστέος). ἁρμόξαι and the like are Doric (Alcman, Pindar) and are by no means (cp. p. 236) an indication of a guttural stem. In view of the Homeric ἤρμοσε on the other hand we may safely 347
assert that the ξ is the result of the derivative *j*. It was probably the analogy of this guttural form which produced the late Attic ἁρμόττω. The γ of ἁρμογή —which occurs first in Eupolis—is either the remains of the old *j*, or else is due to the analogy of ταγή by the side of τάσσω, ἀλλαγή by the side of ἀλλάσσω. The second verb in -οζω is δεσπόζω. It has often been maintained that δεσπόζω was derived from δεσπότη-ς,—from the stem δεσποτα that is,—but this is both phonetically and historically improbable. There is not a single one of the innumerable stems with τ-suffixes which has a derived verb in -ζω corresponding to it. It is no use to cite verbs like ὀνομάζω by the side of ὀνόματ-ος, for, as is shown by ὀνομαίνω and the Goth. *namn-jan*, there was a preliminary ὀνομαν from which ὀνομάζω can be derived. But where are we to find a *πολίζω formed from πολίτη-ς, a *δόζω by the side of δοτός or anything resembling them? And yet, there was just as much reason why such verbs should be formed, if phonetically possible.

We need not attach overmuch weight in this discussion to the fact that δεσπότη-ς is as a matter of fact first found somewhat later than δεσπόζω or rather than the future δεσπόσσεις, the former occurring first in Tyrtaeus fragm. 7, 1, the latter in the hymn to Ceres v. 365. Homer knows only δέσποινα, while Tyrtaeus and the hymn to Ceres have δεσπόσυνος as well. Inasmuch as I consider that even the identity of -ποινα with the Homeric πότνια, πότνα and the Skt. *pátnī* is by no means so certain as seems to be supposed, and that it would be as hard to get δεσπόσυνο-ς from the stem δεσποτα as δεσπόζω, it seems to me far more likely that we ought to start from a compound shorter stem *δεσ-πο. The syllable πο would here correspond to the *-pa* of Sanskrit compounds like *nṛ-pa* lord of men, *gō-pa* lord of cows, and ruler in general, and other words. In that case δεσ-πό-ζω would have come from *δεσ-πο in just the same way as the Skt. verb *gō-pa-jā-mi* from *gō-pá*. δέσποινα and δεσπό-συνο-ς (cp. εὐφρόσυνος, γειτόσυνος) seem to point to a stem *δεσ-πο-ν, the second part of which reminds us of Πάν, and the Lith. *pó-na-s*, Ch.-Sl. *pa-nŭ*.

3. Verbs in -εω, -ειω, -εζω and -ιζω. 348

A portion of the verbs in *-aj̄ā-mi* seem very early to have weakened the first *a* into *e*. The following are the Greek verbs which can be compared with verbs of the like formation in the related languages:

ἀρκέω, Lat. *arceo*.
ἀρτέομαι, Skt. *ṛtá-jē*, set in order.

γηθέω, Lat. *gaudeo.*
θαρσέω, Skt. *dharshá-ja-mi* (venture on), cp. above p. 229.
κοέω, Lat. *cav-eo*, Goth. *us-skav-jan*, Ch.-Sl. *čuvajǫ* (*servo*), O. H. G. *scaw-ôn*, Lith. *kavó-ju* (watch, protect).
ὀρχέομαι, Skt. *ṛghā-jā-mi* (quake, rage), cp. above p. 229.
ὀχέω, Skt. *vāhá-jā-mi* (drive, carry), Goth. *vag-jan* (move).
ῥοφέω, Lat. *sorbeo.*
τροπέω, τραπέω } Lat. *torqueo*, O. H. G. *drâh-jan* (turn).
φορέω, Skt. *bhārá-jā-mi* (let out on hire), Ch.-Sl. *sŭ-bira-jǫ* (*colligere*), Zd. *uz-bāra-ja-t* (he carried out or forward).
ὠνέομαι, Skt. *vasnajā́-mi* (bargain).
(Sophron ὠνασεῖται).

To these we may add a few others which, though not preserved in Greek, throw light on the related Latin *e*-conjugation:

Lat. *cens-eo*, Skt. *çaṣá-jā-mi* (give notice, announce).
Lat. *lub-et*, Goth. *lubai-th* (he hopes).
Lat. *sil-eo*, Goth. *ana-sil-an.*
Lat. *tac-eo*, Goth. *thah-an* (O. Sax. *thag-jan*, O. H. G. *dagên*).
Lat. *terreo*, Skt. *trāsá-jā-mi* (terrify), Goth. *thlas-jam* (?) (terrify).

And the following, which are instances of the variation of vowel in the derivative syllable:

βαρέω, Lat. *gravāre*, *gravāri*, Goth. *kaurjan* (burden).
δειπνέω, Lat. *dapināri.*
ἠγέομαι, Lat. *ind-āgā-re* (properly to drive into the net).
καλέω, Lat. *calā-re* by the side of *Cale-ndae*, O. Sax. *halôn* (call).
349 καλήτωρ, Lat. *calātor*, O. H. G. *holên* (fetch).
λοέω, Lat. *lavā-re.*
σκοπέω, Lat. (*au*)-*spicāri*, O. H. G. *spëhôn* (spy).

The converse of this relation holds between ὀργάω and *urgeo*, which meet in the Skt. *urǵājā-mi* (part. *ūrǵājant* powerful).

The verbs in εω are by no means so closely related to any particular class of noun-formations as those in -αω and -οω. Some come from *o*-stems, as αἰνέω, διανέω, κοιρανέω, κοσμέω, οἰκέω, some from *a*-stems, as ἀπειλέω, ἀϋτέω, φωνέω (Pind. φώνασε), ψευστέω, as many from *s*-stems (cp. Skt. *ōǵāǰā-mi* from *ṓǵas* strength), as ἀμελέω, ἀνθέω, εὐτυχέω, θαμβέω, κρατέω, some from stems ending in other consonants, as ἀφρον-έω, ἱστορ-έω, ἐπιχειρ-έω. This indifference as to noun-stems shown by the verbs in -εω explains the fact that there is often, as in the case of ἀσκέω, αὐχέω, δηλέομαι, ποιέω, ὑλακτέω, either no noun-stem at all or one which occurs only in compounds, e.g. in φων-ασκό-ς, λογο-ποιό-ς, as also, on the other hand, the fact that the forms of the verbs in -εω and -ω, as we shall see later on, so often interpenetrate each other.

Of presents in -ειω there are seven in Homer (Stud. iii. p. 192): ἀκείομαι (also in Pind. Pyth. ix. 104), μαχείομαι, νεικείω (also in Hesiod and Theocritus), οἰνοβαρείω, ὀκνείω, πενθείω, τελείω. With regard to five of these Leskien has shown at Stud. ii. 95, that they are founded on sigmatic noun-stems, those i.e. of the words ἄκος, νεῖκος, οἰνοβαρής, πένθος, τέλος. He conjectures not im-

probably that the same is the case with ὀκνείω, for it is just as conceivable that there should be a τὸ *ὄκνος, formed like ἔθνος, ἔτνος as well as a ὁ ὄκνο-ς, as that there should be, as there is, a τὸ σκότος as well as a ὁ σκότο-ς. Still this is mere conjecture, and as regards μαχείομαι there is absolute lack of grounds for saying that in this instance also the ει owes its existence to a σ which once existed between the ε and the ι. There is on the other hand good ground, in view of the Lesbian μαχαί-τα-ς mentioned on p. 235, for thinking that μαχείομαι (ρ 471 μαχειόμενος) existed along with μαχαίω and was formed from the stem μαχα (μάχη). To this may be added ὑμνείουσαι in the proem to Hesiod's Opp. 2, which is certainly to be referred to ὕμνο-ς, and οἰκείων (Theog. 330) by the side of οἶκο-ς. It is possible that we ought not to attach much weight to the 350
forms used by late poets, of which Lobeck Rhemat. 92 gives a list, for these are probably all blind imitations of Homeric prototypes which owe their existence to the delusion, not even yet rooted out, that the Homeric dialect admits of the lengthening of any ε whatever into ει. It is to be noticed moreover, that Herodian (in the E. M. p. 620, 44, ed. Lentz ii. 267) regarded ὀκνείω by the side of ὀκνέω not as mere πλεονασμός, but as παραγωγή, ὥσπερ παρὰ τὸ θάλπω γίνεται θαλπείω, ῥιγῶ ῥιγείω, οὕτως ὀκνῶ ὀκνείω. So too at ii. 462, where he adds the desideratives like πολεμησείω. Such a view was perhaps based on the fact that in some cases there were only so-called barytone verbs in use by the side of those in ειω, as in this very instance of θαλπείω and θάλπω, and that of θερειόμενος (Nicand. Ther. 124, Al. 567) and θέρομαι. A bare mention may here suffice for the following forms: ἀπειλείω (Nonnus, Musaeus), καπνείων (Nicand. Ther. 36), κελευθείοντες (ὁδεύοντες Hesych., the M.S. has κελευθίοντες), ὑδείομεν (Callim. in Jov. 76). It is only θαλπείω and θερείω which could have anything to do with stems in σ. Considering all this I think it must be admitted that -ειω was an old by-form of -εω, related to it in much the same way as -αιω to -αω. The Boeotians said ιω for εω: αὐλίοντο, δοκίει (=δοκέῃ) etc. (Ahrens Aeol. 179). Since ι, in this dialect, when long, is the regular representative of the diphthong ει, and when short, can stand for ε too, and since the forms given above are only known to us from inscriptions, it is impossible to say whether the step before the ιω was ειω or εω.

There is, according to Herodian (i. 443, ii. 949), only one present in -εζω of more than two syllables: πιέζω, which is found from Homer onwards (Π 510, δ 419), with the Doric by-form πιάζω (Alcman fragm. 44 Be.[3] ἐπίαζεν) and the doubtful Ionic πιεζέω which Herodian (ii. 140) attributed to Apion, while rejecting it himself. The Doric πιάζω was, as Herodian saw, ἀναλογώτερον. Fick, (i.[3] 146) is probably right in taking the rt. of the verb to be *pis*, Skt. *pish*, which, though its primary meaning, retained in πτίσσω, is 'pound,' comes very near to πιέζω in many of its compounds, e.g. in *ā-pish* press hard, *ut-pish* crush, *prati-* 351
pish rub against anything. I cannot agree with Fick however in regarding the ζ of πιέζω as related to the *d* of the secondary root *pīḍ* for **pis-d* (to be hard pressed). The *πισ-ε-δ or even *πισ-α-δ which, he assumes, and supposes to have arisen from **pis-d* by the introduction of an auxiliary vowel, has no analogy to support it. This explanation, too, will find obstacles in the forms with ξ, γ and χ, and especially in the Dor. πιάξας (Theocr.), in ἐπίεξα, πεπίεγμαι, ἐπιέχθην (Hippocr.), which exist on good authority beside ἐπίεσα and πεπίεσμαι. For with very rare exceptions, among which e.g. is καθίξῃ in Theocr. (1, 51) from the rt. ἑδ, such guttural forms are found in conjunction with a present in ζ only when this ζ is the product of $\gamma + j$ or a simple *j*, and not when

it has come from $\delta + j$. It results from this that the ζ of *πιάζω*, *πιέζω* is a derivative ζ of the same kind as that in *ἁλαπάζω*, *πτολεμίζω*. The primary form we may take to have been **pisajā-mi*. From the rt. *pis* a noun-stem **pis-a*, Gk. *πι-σο*, *πι-ο*, must have been formed, and from this the derivative verb *πιάζω*, *πιέζω*, of which the latter must bear to the former much the same relation as that of the New-Ionic *ὁρέω* to *ὁράω*. The further weakening of ϵ to ι, which took place as a rule in the analogous verbs, was prevented in the case of *πιέζω* by the preceding ι. Cp. Mangold Stud. vi. 155.—Further traces of an ϵ in this position are the Homeric forms *ἀκηχέδατ'* (P 637) and *ἐληλέδατ'* (*η* 86), on which I may refer to Princ. ii. 293. As a companion to the former we find at M 179 the specially noticeable *ἀκαχείατο*, of which the *ει*, which has been transported into the perfect stem, can hardly be a mistake for *η*. *ἀκηχέδατ'* derives additional support from the substantive *ἀκηχεδόνες· λύπαι* (Hesych.). The δ is here of just the same kind as in the Herodotean *κεχωρίδαται*, only before it the older ϵ, which in *ἀκαχίζω* has sunk before the double consonant to ι, has survived intact. In the case of the reduplicated stem *ἐληλεδ* we may assume the same relation to **ἐληλαδ* as that between *πιέζω* and the Doric *πιάζω*. As a present to it we should have expected **ἐλέζω*, and with the fuller vowel **ἐλάζω*, to the latter of which moreover point such forms as *ἤλασα*, *ἐλαστός*, *ἠλάσθην*. Perhaps too there is to be seen in Homer's epithet for Notos, *ἀργεστής* (*ἀργεστᾶο Νότοιο*
352 Λ 306) the trace of a verb **ἀργέζειν* to make clear, from the adjective *ἀργό-ς*, in its meaning of *λευκός* which is preserved in Hesychius.—The Tarentine *ἄνεγμα· αἴνιγμα* Hesych. points to **αἰνέζω* as an older form for *αἰνίζω*.

We have in this way traced the steps which connect the verbs in *-εω* with those in *-ιζω*. Of the latter it is only a portion which belong to the division now under discussion, while others, in which, e.g. in *ὀπίζω* from the stem *ὀπι*, *ἐλπίζω* from the stem *ἐλπι*, we have no reason to deny the antiquity of the ι, will take rank along with the verbs in *-ιω*. Those verbs in *-ιζω*, on the other hand, which in formation and meaning approach nearly to those in *-εω*, belong to our present class. The fact itself, that *ιζω* takes rank beside *εω*, as *αζω* beside *αω*, was first recognised by Grassmann, and by him demonstrated at length at Ztschr. xi. 97 ff. The simple explanation thereof is to be found in the double consonant, before which in *ῥίζα* (cp. *rad-ix*), *ἴζω* (= *ἑδ-jω*), *χθιζός* beside *χθές* a hard vowel has passed into the corresponding soft one. Further parallels to this weakening are to be seen in *ἴσ-θι* by the side of *ἐσ-τί*, *ἰσ-τία* by the side of *ἑστία* and other phenomena discussed at Princ. ii. 379. Lobeck saw that the verbs in *-ιζω* were closely related to those in *-εω*, and he even declares at Rhemat. 227: 'Eorum quae apud Homerum leguntur pleraque metri causa diverse declinata sunt: *κομέειν κομίζειν*, *χατέουσι χατίζει* etc.'; though he has sufficient insight to make him shrink from finding the exclusive ground for the twofold form in the licence of poetry, and prefers instead to conjecture 'hunc paraschematismum cum sermone ipso natum esse.' Homeric Greek presents us with 9 cases of this twofold form:

αἰνήσουσι (*π* 380)	*αἰνίζομ'* (*θ* 487)[5]
αἰτήσων (*ρ* 365)	*αἰτίζων* (*ρ* 222)
ἀκάχησε (Ψ 223)	*ἀκαχίζεις* (*π* 432)[6]

[5] To this verb belongs *αἴνιγμα*, in which the γ is of just the same kind as that of *ἁρμογή*, and just as this latter had *ἁρμόσσω* formed at a late period, so the former had *αἰνίσσομαι* formed in Attic Greek.

[6] *ἀκαχίζω* is, like *γοργαρίζω* and a few other reduplicated verbs, an intensive

κανάχησε (τ 469)	κανάχιζε (Μ 36)
κομέειν (ζ 207)	κομιζόμενος (θ 451) 353
κονάβησε (Ο 648)	κονάβιζε (Ν 498)
μοχθήσειν (Κ 106)	μοχθίζοντα (Β 723)
ὀχλεῦνται (Φ 261)	ὀχλίσσειαν (Μ 448) (I. Bekker ὀχλήσειαν)
προκαλέσσατο (Η 218)	προκαλίζετο (Γ 19)

To these may be added ἀράβησε and ἀράβιζε in Hesiod, the Homeric σμαραγῆσαι and Hesiod's ἐσμαράγιζε, and a large number from late poets and prose-writers, such as τειχέω and τειχίζω, ἀτρεμέω and ἀτρεμίζω, ὑστερέω and ὑστερίζω, ἠρεμέω and ἠρεμίζω, ἀσμενέω and ἀσμενίζω, σελαγέω and σελαγίζω. With respect to the differences which are to be seen in some of these cases in the meaning, e.g. in δειπνεῖν (take a meal) and δειπνίζειν (entertain a guest), both in Homer, and in others in the matter of dialect or style, we may refer to Lobeck. The only point I wish to emphasise here is that several aorists and futures with a short vowel are thus satisfactorily explained. ἀκήδεσα (Ξ 427), ἀρκέσω, καλέσσατο, αἰνέσω it is quite simple to regard as belonging to *ἀκηδέζω etc. *καλέζω, *αἰνέζω were the forerunners of the actually existing καλίζω and αἰνίζω. In fact καλέσσαι bears to καλίζω exactly the same relation that ἔσσαι does to ἴζω.

The close relationship of the two formations entitles us to compare the verbs in -ιζω as well as those in -εω with Latin verbs of the *e*-conjugation. Thus μαδίζω the by-form of μαδάω comes perhaps nearer to the Latin *madēre* than the *a*-form does, and προκαλίζω as near to the Latin *Calendae* as καλέω does. φατίζειν seems to have sprung from two sources: on the one hand, in the meaning speak, spread a report, it comes very near to φάτι-ς, while in that of promise, appoint (e.g. Eurip. Iph. A. 135 ὃς τῷ τῆς θεᾶς σὴν παῖδ' ἅλοχον φατίσας ἦγες) it strongly suggests *fateri*, *profiteri*. The interchange between ε and α is so common that we are entitled also to assume the relation between

ὁμαλίζω (also ὁμαλόω)	and *simulare*
πορίζω	and *parāre*
γνωρίζω	and *i-gnōrare*[7] 354

to be none other than that with which we met above in the case of βαρέω and *gravāre*.

If we inquire into the sources from which the verbs in -ιζω are derived within the Greek language, we shall find that many, such as ἐναρίζω, λογίζομαι, οἰκίζω, ὁπλίζω, νομίζω, προμαχίζω, come from *o*-stems, a very small number, such as καναχίζω, πειρητίζω (cp. above p. 236), πληκτίζομαι, from *a*-stems, several, such as τειχίζω, μερίζω, θερίζω, ὀνειδίζω, κτερείζω, from *s*-stems. By far the largest portion of verbs in ιζω developed as the language went on, gradually, and some quite late. Those of them which point to a consonantal stem, such as ἀγωνίζομαι, ἀκοντίζω, μακαρίζω etc., will be placed in the other division, in which the ι is the original letter.

formation (cp. the Homeric ἀχέων), and thus takes rank with the intensives, with which we became acquainted at pp. 212, 215, 226 etc., though it is distinguished from them by the fact that -ιζω, like -εω, points to a preliminary noun-form. In the case of μερμηρίζω this form is actually found in μέρμηρα.

[7] Both verbs have evidently come from an adjective-stem almost identical with the Lat. *gnāru-s*, *i-gnāru-s*.

First Excursus.

On the Interchange and the Meaning of the Verbs in -αω, -οω, -εω.

Having thus reviewed the origin of the three commonest classes of derivative verbs, we have two things left to do before we proceed to the other classes. We must first say something more on the grounds for the division of what was originally a single class, more particularly in respect of the meaning, and then we shall have to discuss the phonetic treatment which the so-called contracted verbs received in the various Greek dialects.

The source of the division of the derivative verbs was, as has been above stated, the splitting up of the old *a*-sound, which resulted, as we conjectured, first in the development of an *e* beside the *a*, and so of an *e*-conjugation beside the *a*-conjugation, and subsequently of an *o*-conjugation as well. It is clear, however, that these fresh growths did not unfold themselves unaided by the operation of analogies not only of sound but of meaning as well. At first all derivative verbs had hardly any other function than that of denoting a state or
355 action standing in some relation or other to the notion of the noun-stem from which they were derived, and even as to the relations in which we find them in the period of Greek of which we have full knowledge, it is, as Lobeck says (on Buttm. Ausf. Gr. ii.[3] 384), labour lost to try to get a definite formula for the use of the different kinds of derivative verbs. It is, however, possible, as I have pointed out in my essay 'Ueber die Spuren einer lateinischen o-conjugation' (Symbola Philol. Bonnens. i. p. 272), at all events to find some pretty thorough-going analogies. On reviewing the lists given by Leo Meyer of Homeric verbs in *-αω, -εω, -οω*, we perceive immediately that those in *-οω* are formed, in the majority of cases, from *adjectival o*-stems—out of 40 there are 21 such—and that these have clearly a *causative* or factitive meaning, as e.g. in *ἀϊστόω, ἀλαόω, ἀλιόω, γυμνόω, ἰσόω, κακόω, κυρτόω, μονόω, οἰόω, ὁμοιόω, ὀρθόω, σαόω, χηρόω*, all of which we can translate to *make* something. Along with these go others which come from substantives, and have a similar meaning,—that of 'bring about something, provide with something'—e.g. *ὑπνόω, χολόω, θριγκόω, πτερόω* (cp. the Skt. *pattrāja-mi* provide with feathers), *στεφανόω*. On the other hand the verbs in *-αω*, which come from feminine noun-stems in *α*, get their meaning from these nouns, and generally denote the exercise of some activity or the existence of some state, e.g. *ἀγαπάω, ἀγοράομαι, αἰτιάομαι, αὐδάω, βοάω, δυάω, ἠβάω, θεάομαι, θοινάομαι, μηχανάομαι, νικάω, πειράω, πλανάομαι, ποτάομαι, σιγάω, τολμάω*. This analogy makes itself felt also in the comparatively late formations in *-ιαω*, which denote a bodily or a mental languishing or desire (cp. Chap. XXIII.), such as *ναυσιάω, ὠχριάω, κλαυσιάω, στρατηγιάω, τυραννιάω*. Most of these verbs presuppose, in idea at least, feminine nouns in *-α*.

With regard to the verbs in *-εω*, however, I would venture to conjecture that they were formed under the influence of a twofold analogy. On the one hand it looks as if an *intransitive* meaning was developed very early in a large number of them. In view of Latin pairs of verbs, such as *albare* and *albēre*, *clarare* and *clarēre*, *salvare* and *salvēre*, as also of the numerous inchoatives in *-ēsco* (cp. above p. 190), and the prevailing intransitive or inchoative meaning of
356 the Church-Slavonic verbs in *ěje-ti* (e.g. *žlŭtě-je-ti* flavescere) one is tempted to conjecture that in a period preceding the differentiation of the Greek language as such, this difference had developed itself between the *a*- and *e*-conjugations,

that the former—from which sprung later the *o*-conjugation as a separate formation—took more particularly the transitive meaning, the latter the intransitive. This rule holds good at any rate in Greek in a large number of compounds. In this language *-εω*,—and *-ιζω* too,—was the formation uniformly employed for the numerous and mostly intransitive verbs formed from nomina agentis, of which Leo Meyer (p. 25) finds 21 in Homer, such as *ἀελπτέω, ἀπιστέω, ἐπικουρέω, ὑπερηφανέω.*

A second analogy is to be found in the extraordinarily large number of masculine substantives in *o* of abstract meaning which existed in Greek from the first, such as *ἆθλος, αἶνος, γάμος, κόσμος.* Out of 66 Homeric verbs in *-εω* 44, such as *ἀθλέω, αἰνέω, γαμέω, κοσμέω, κτυπέω, μοχθέω, ὄκνέω, ὁμαδέω, ὁμιλέω, ποθέω, πονέομαι, στοναχέω* (*στεναχίζω*), *φθονέω*, come from stems of this kind. In this way it happened that a much less definite contrast arose between verbs in *εω* and those in *αω* than between verbs in *εω* and those in *οω*, which we assumed, as a rule, to be formed from adjective-stems.

It was the coincidence of the most various circumstances which obliterated the boundaries between the three conjugations. In the first place a conflict arose in many instances between the analogy of meaning and that of sound. *γεφυρόω* probably owes its existence, in spite of *γέφυρα*, to the preponderance of the former, as does *ἱεράομαι* in spite of *ἱερό-ς*, while *λωβάομαι* and *τελευτάω*, in spite of their somewhat causative meaning, to the phonetic analogy, i.e. to the prevailing sense of their connexion with *a*-stems. Of course there were other tendencies which helped to shift the verb from one class to another. Possibly it is sometimes only our defective knowledge of the Greek vocabulary which makes us think this. There are, for instance, many instances of *a* and *o* stems existing side by side; and it is sometimes a mere chance that one has been preserved and not the other. How easily, e.g. might the remarkable *κορυφοῦσθαι* have come from a lost **κορυφο-ς* existing by the side of *κορυφή*? On the other hand there were no doubt cases where phonetic weakenings took place. Many an original *-αω, -αζω* may in this way have degenerated to *-εω, -ιζω*, 357 more particularly in cases in which the consciousness of the connexion with an *a* stem had been lost, as we conjectured to have happened in the case of *ῥιπτέω* by the side of the Homeric *ῥίπτασκε, ῥιπτάζω.*

In the Greek dialects the mutual interchange between all three conjugations is as common as that within the same dialect at different times, and where two or even three forms of the same word were in vogue at one time, it was necessary that the tendency towards differentiation should give rise to small varieties of use which are not in all cases quite consistent with the prevailing analogies. In the chapter 'de confusione terminationum conjugationis circumflexae' in Lobeck's Rhematikon p. 163 ff. and in his note on Buttmann ii.[2] 53, is a copious store of material, although all that is purely dialectic is there excluded. It will be enough for us to adduce a series of facts. The numerous Ionian by-forms in *-εω* for the verbs in *-αω* seem clearly to be the result of a weakening. In this case we are inclined to find the special ground in the Ionic preference for *ε* as compared with other vowels. Hence *ἤντεον, μενοίνεον, ὁμόκλεον* by the side of forms with the *a* in Homer, *ἐρέω* for *ἐράω, διψέω* for *διψάω* in Archilochus, *κυκεύμενος* for *κυκώμενος* in Solon, *ἐχρέοντο, οἰδέοντο, ὁρέω* in Hippocrates (Renner Stud. i. 2, 43), and much of the same sort, such as *εἰρώτεον, ἐμηχανέοντο, ὡρμέοντο, φοιτεόντ-ων, τολμέω* in Herodotus (Bredow dial. Herod. 382). This explanation, however, does not hold for all cases, for while it may be said that *ὠνασεῖται* by the side of *ὠνέομαι* is an

antiquated Doric form, on the other hand *ὁρέων, συλέων, ἐπιτιμέων, ἐρευνέοντες* are Doric as well as Ionic (Ahrens 310, Sitzungsber. der k. sächs. Gesellsch. d. W. 1864, p. 221), and though Plato uses *αἰολέω*, the Ionic Hippocrates has *αἰολᾶται*. *ξυρέω* is the older and *ξυράω* the post-Attic form, and there are other instances in which the Atticists warn their readers against the *αω* of the *κοινή* as opposed to the *εω* of good Attic, and thus it appears likely that it was not phonetic grounds but conflicting analogies which were the determining causes in many instances.

We may perhaps be right in regarding Doric forms in *αω*, where the other dialects use the form in *οω*, as of an older date, e.g. *κοινασάντες* (Pind. Pyth. iv. 115), *παρεκοινᾶτο* (ib. 133), to which we may add the Asiatic-Aeolic *ἀξιάσει* = *ἀξιώσει* (Ahrens Aeol. 94, Philolog. xxv. 191). We have already compared
358 *νεᾶν* with the Lat. *novāre*. This form, as distinguished from *νεοῦν*, is specially used, as Lobeck remarks, 'de innovatione agrorum,' clearly an old use of the word, in which the old form has survived. *κνισσᾶν* occurs in earlier Greek, *κνισσοῦν* in later. On the other hand, in a Lesbian inscription edited by Conze (Reise auf Lesbos p. 23) we read (at l. 7) *τιμώσασα* instead of *τιμάσασα*. Instead of the usual *σκευάζω* we read in an inscription from Megara (Revue Archéol. July 1875, p. 20) *ἐπεσκεύωσαν* and C. I. G. 2448, viii. 25 *κατασκευωθῆ*.

Comparatively the least interchange takes place between *εω* and *οω*, such as is to be seen in the Ionic forms *ἀντιεύμεθα, ἀξιεύμενος, μισθεῦνται, ἐδικαιεῦντο* (Bredow 391). We find *κυκλέω* and *κυκλόω*, *ῥιγέω* and *ῥιγόω* existing side by side without essential difference of meaning. There are even cases where all three forms exist, as *σκηνάω, σκηνέω, σκηνόω*, all three good Attic, and with no definite variety of meaning. The unity of all these forms is, I think, confirmed afresh by the extent to which they were used for each other.

Second Excursus.

On the Inflexion of the Verba Contracta.

I have treated the inflexion of the verba contracta in full at 'Studien' iii. p. 379 ff. I may therefore be allowed to give here a very brief recapitulation of the results of the investigations there detailed.

As distinguished from the other dialects, the Aeolic dialect, it is generally stated, treated the contracted verbs like verbs in *-μι*. A closer examination, however, reveals the fact, that the use of different terminations was quite an insignificant element in the difference between the dialects—for in reality it is only in the first person singular: Aeol. *φίλημι* by the side of *φιλέω*, and in the infinitive active: *φιλῆμεν* or *φιλῆναι* by the side of *φιλεῖν*, that there is a difference in this respect—the main point being that they differ in the mode of treatment of the vowels and diphthongs which appear in the body of the verbal forms:

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Aeol. *φίλημεν*	Att. *φιλοῦμεν*
„ *φίλεισι*	„ *φιλοῦσι*
„ part. *φίλεις*	„ *φιλῶν*
„ *φιλήμενος*	„ *φιλούμενος*

These vowels are in many forms just as long in Aeolic as in Attic, so that

φίλη-μεν and *τίθε-μεν*
ἄσά-μενος and *ἱστᾰ́-μενος*

are distinguished from each other equally clearly in both dialects. The only exceptions are such forms as either have, or once had, *ντ* after the conjugational vowel: *φίλεις*, gen. *φίλε-ντ-ος*, 3rd pl. *φίλεισι* for **φίλε-ντι*, and the vowels preceding the modal characteristic of the optative: *φιλε-ίη-ν*, *γελα-ίη-ν*. We have already seen (on p. 135) the neighbouring sounds exercising the same shortening influence in the primitive aorists, and we referred then to the formations now under discussion. Now the long vowel sound which we thus find to be the rule must without doubt be explained to be the result of contraction. The Aeolic verbs *φίλημι*, *γέλαιμι*, *δοκίμωμι* are just as much contracted verbs as those in the other dialects and in Latin, to the latter of which the Aeolic forms bear the closest resemblance, e.g.

δόκη-μεν = Lat. *docē-mus*
δόκει-σι = „ *doce-nt*
δοκήμενος = „ *docē-mini*.

In the conflict between the two vowels Aeolic like Latin lets the first vowel, which we may call the conjugational vowel, prevail throughout, while the main Ionic dialect was far less consistent in its procedure.

In order to comprehend the rule of the Aeolic contraction we must start from *-ajā-mi* as the primary form. This is only feasible, however, on the three following assumptions:

1) The second *a* may, at the time when the Greek dialects still formed a single whole, not yet have manifested that regular change of *o* and *e* sounds which is the characteristic of the thematic vowel. There is no way of getting from *φιλέομεν* to the Aeol. *φίλημεν*, or from *φιλεόμενος* to *φιλήμενος*. On the other hand all the vowels can be completely explained as soon as we assume 360
that the *-ajā-mi* first appeared on Greek ground in the forms *-a-jē-mi*, *-o-jē-mi*, *-e-jē-mi*. At p. 206 we recognised, as we thought, in the syllable *-ja* the verb *to go*. In the forms *ἰέ-ναι*, *ἰε-ίη-ν* we have formations which differ from the *-jē-mi* of our search, only in having the vowel *ι* in the place of the spirant *j*. Hesychius has moreover preserved the gloss *εἴη-μι· πορεύομαι*. If this is, as Lobeck conjectured, a mistake for *ἴη-μι*, we have here the 1st sing. ind. to *ἰέ-ναι*. Perhaps too *θίη-μι· ποιῶ*, *θιῆ-σαι· ποιῆσαι* (Hesych.) with *θι* for *θε*, is to be referred to **dha-jā-mi*, so that it comes quite near to the Ch.-Sl. *dě-jǫ* I do. A remarkable form however, which, as I believe, confirms our conjecture of the original presence of the *e*-sound in this place, is the hitherto unexplained and extraordinary present *ἀχνάσδημι* quoted in the E. M. p. 181, 44 from Alcaeus. The authority for it is Herodian *περὶ παθῶν* (ed. Lentz ii. 290), and this is enough to give credit to the form. Alcaeus wrote *ἀχνάσδημι κάκως* meaning 'I am sorely vexed.' Herodian is no doubt right in connecting the form with *ἄχος*, or, as we should say, with the rt. *ἀχ*, though in a way of his own: '*ἔστιν ἄχω*, *παραγωγὸν ἀχάζω*, *ἀχάζημι καὶ τροπῇ τοῦ ζ εἰς σ καὶ δ πλεονασμῷ τοῦ ν ἀχνάσδημι*.' Without vouching for the perfect completeness of this account, we may anyhow be sure of the form itself. *ἀχνάσδημι* was the Aeolic form of what in Attic was *ἀχνάζω*. This form we may suppose to have arisen in the following way. There is nothing to prevent our presupposing a noun-stem **ἀχ-να*, formed from the rt. *ἀχ* in a similar way to that in which *τεχ-να* came from the rt. *τεκ*. The first formation from this stem is *ἀχνάζω*,[8] which might

[8] Hesychius's gloss *ἀχνάζει· ἄχθεται, μισεῖ, ψέγει* has been omitted from both of Mor. Schmidt's editions, no doubt by an oversight, as the note to 92 shows The older editions have it.

have come from it exactly in the same way as δικάζω from the stem δικα. Inasmuch now as we have recognised the ζ of such formations to be the representative of an original *j*, we are brought to a form **ἀχνα-jω*. In the place of the ω, however, *ἀχνάσδημι*, which has incontestably come from *ἀχνα-jη-μι*, shows
361 us the very *e* sound which we were looking for in verbs of this kind. It is remarkable what confirmation this form gives to both of our hypotheses, first that the *e* sound is the predecessor of the *o* sound, and again that the verba contracta were originally identical with those in ζω. From the primary *a-jā-mi* then there was developed, as we may now assert more definitely, first *a-jē-mi*. This again split up, according to the way in which the *j* was treated, on the one hand to *a-ζη-μι*, on the other to *a-η-μι*, and inasmuch as the *a* can appear in either of three forms *a*, *ε*, or *o*, there results all the variety of ending which we have here to try to comprehend.

2) The second assumption which is requisite for the comprehension of the Aeolic formation is that the *j*, previously to its disappearance from between the two vowels, was in all cases productive of lengthening. The most various traces survive of the original length of the vowels of the verba contracta, as we shall have occasion to notice immediately. We shall therefore have to assume, for an early period of Greek, forms like

**γελᾱη-μι*,	**φιλήη-μι*,	**δουλώη-μι*,
**γελᾱέ-μενος*,	**φιληέ-μενος*,	**δουλωέ-μενος*,

from which by contraction came *φίλημι*, *δούλωμι*, *γελᾱμενος* (cp. *ἀσᾱμενος*), *δουλώμενος*.[9]

3) Our third assumption is that a transition, even among the Aeolians, was gradually made to the conjugation in -ω, though perhaps only to a small extent. The only actual instances we have from Aeolic Greek are *καλήω* (Herodian ii. 332), *ποθήω*, *ἀδικήει*. *ποθήω* bears the same relation to *πόθημι* that *δεικνύω* does to *δείκνυμι*. Strictly speaking what happened was that the *e*-sound in *ποθή-η-μι*, plur. *ποθή-ε-μεν*, underwent the change to an *o*-sound which regularly happens in the verbs in ω. The first person *ποθήω*, later *ποθέω* finds its closest analogy in the Lat. *mone-o*, while *monē-mus*, *mone-nt*, as we saw, correspond to **πόθη-μεν*, **πόθει-σι*. The Cyprian *καλήζω* (Princ. ii. 266) preserved by Herodian (i. 444,
362 ii. 332) is a remarkable form. It proves on the one hand that ζ represents *j* alone, and shows, on the other, that the lengthening assumed above belongs to a period previous to the origin of the forms with the ζ.

Homeric Greek, as is well known, has retained lengthened forms of this kind in great abundance: from the *a*-conjugation forms like *συλήτην*, *προσαυδήτην*, *συναντήτην*, *φοιτήτην*, *ἀρήμεναι*, *γοήμεναι*, *πεινήμεναι*, *ὀνήμενος*, which are only distinguished from the Aeolic formations by the Ionic *η*; from the *e*-conjugation forms like *ἀπειλήτην*, *ὁμαρτήτην*, *καλήμεναι*, *πενθήμεναι*, *φιλήμεναι*, which may be compared with the Boeotian *καρτερῆμεν* (probably more correctly *καρτερεῖμεν* Ahr. Dor. 523), *ἀλιτήμενος* which corresponds to the Arcad. *ἀδικήμενος*, the Lesb. *φορήμενος* and the Boeot. Delph. and Locr. participles, like *ἀδικείμενος*, *ἀφαρείμενος*, *καλείμενος*; from the *o*-conjugation the 3rd sing. *σάω* (Π 363, Φ 238), which could not conceivably have come from **ἐσάοε*, but which falls

[9] The specifically Aeolic epenthesis of the *ι* in *γέλαμι*, and other irregularities, such as those enumerated by Ahrens Aeol. 139 — 3rd sing. *φίλει*, *χαύνοι*, apparently the result of weakening—need not be mentioned here.

into its place quite simply as the 3rd sing. to the 2nd sing. preserved in Alcaeus fr. 73 ὅτ' ἄσφ' ἀπολλυμένοις σάως, as also does the imperative σάω ν 230, ρ 595 as analogous to the so-called Aeolic μύρω (Ahrens 140), so that we have to recognise in it a contracted form of *σάωε. To these must be added the forms ἑάλων, ἁλοίην, ἁλῶναι, ἁλούς, ἐβίων, βιοίην, βιῶναι, βιούς which survived after Homer's time, and which, notwithstanding their aoristic meaning are, as we saw on p. 133 f., undoubtedly presents in origin, and provide us, in their long vowels, with the clearest evidence in support of our view. It is thus placed beyond a doubt that here, as in other cases, the Aeolians preserved formations of a kind peculiar to the earliest period of the Greek language in general.

There is a like plenty of forms from various dialects like the Aeolic ποθήω, ἀδικήεις, forms, that is, in which the thematic vowel has made its appearance, while the conjugational vowel is still long. Such are the Homeric πεινάω, διψάω, μενοινήησι (O 82), the Hesiodic ἀμᾶεῖν (Opp. 392), the Attic πεινῇς, διψῇ, ἐδίψη, χρῆται etc., which can only be conceived as coming from πεινήεις, διψήει etc., the Delphic συλήοντες, by the side of συλέων, συλέοντες, and contracted forms like συλῆν, συλήτω, the Homeric ὑπνώοντες, ἱδρώουσα, just like the forms from the Delphic dialect: ἀπαλλοτριώουσα, ἀπαλλοτριωοίη, στεφανωέτω, μαστιγώων, by the side of the contracted δουλῴη, of which the last may be compared with well-attested Attic forms like the infin. ῥιγῶν, conj. 3. s. 363
ῥιγῷ, Opt. ῥιγῴην, part. dat. ῥιγῶντι (Aristoph. Ach. 1146) and Hippocrates's ἱδρῴην, ἱδρῶσι, ἱδρῶντες. The view, which in itself is objectionable, that forms like these are in Homer due to metrical license, is completely upset by these facts.

What place is to be found, in this history of the verba contracta, for the so-called lengthened, but more properly speaking, assimilated Homeric forms like ὁρόω, ὁράᾳς, μνωόμενος etc., is a question which I will not again enter on here, as I have on several occasions expressed my views with regard to it,—most recently at Stud. iii. 400,—and as I can now refer the reader to Mangold's paper 'De Diectasi Homerica,' Stud. vi. 139 ff.

4. Verbs in ιω and ιζω.

Just as the noun-stems in ι are far less numerous than those which end in α or ο, so too the verbs in -ιω and those verbs in -ιζω in which the ι may be regarded as native to the stem fall in number far below the three classes hitherto discussed. The only verbs in -ιω from noun-stems in ι are δηρίω (Homeric δηρίσασθαι from δῆρι-ς), κληΐω (Hom. κληΐσαι from κληϝί-ς = Lat. *clāvi-s*, Hdt. κληΐω, Att. κλῄω, later κλείω), κονίω (κόνι-ς, later κονίζω), μαστίω (μάστιε Π 662 from the st. μαστι acc. μάστι-ν), μηνίω (μῆνι-ς, μήνῐε, μηνῖσας), μητίομαι (μῆτι-ς, μητῖσομαι). We cannot be so sure that the Homeric κηκίω (ἀνεκήκιε, Soph. κηκῖον) comes from the post-Homeric κηκί-ς (gen. κηκῖδος). The first two of these verbs have a long ι throughout, and this must undoubtedly be held to be older than the short vowel, and is perhaps the product of the final ι of the stem and the derivative *j* (κονι-ϳω, κονῑ́ω). To these correspond, in Sanskrit, verbs like *ǵanī-já-ti* he wants a wife (*ǵáni-s*), *arāti-já-ti* he threatens mischief (*árāti-s* mischief), in Latin, verbs like *finīre*, *grandīre*, *lēnīre*, *potīre*, *in-rētīre*, *vestīre* which are evidently founded on noun-stems in *i*. Where no such nouns can be found for Greek verbs in -ιω, as is the case e.g. with ἀλίω, κυλίω (by-form κυλίνδω, κυλινδέω), μαρίειν (ὀχλεῖσθαι, πυρέττειν Hesych.) we ought perhaps to assume that such stems have been lost. For μαρίειν, which has been wrongly

suspected, such a stem might be deduced from *μαρί-λη* glowing coal, coal-dust, and it is related anyhow to the name of an inflammable stone which in Aristotle
364 according to Bonitz's Index is *μαριεύ-ς* (*μαριέα* v. l. *μαριθάν*), in Hesych. is *μαριζεύ-ς*. The verbs in *-ιω* which are, at least apparently, primitive, we have discussed on p. 207 f.

Along with these verbs in *-ιω* come a number of forms in *-ιζω*, which point to primitive stems of the same kind. They bear to the verbs in *-ιω* the same relation as that of the above-mentioned *μαριζεύς* to *μαριεύς*. Such are *κιθαρίζω*, *νεμεσίζομαι*, *νοσφίζω* (adv. *νόσφι*), *ὁμηγυρίζομαι*, *ὀπίζω*, *πολίζω*, *ὑβρίζω*, *χαρίζομαι*, *χατίζω*, all Homeric verbs, to which may be added e.g. from later Greek *ῥαχίζω* (cp. also *ῥαχίτη-ς*), *φημίζω*. None of the noun-stems belonging to these verbs show a δ in their inflexion, as is the case with *ἐλπί-ς*, *ἔρι-ς*, *πα-ΐ-ς* (*παῖ-ς*), *ῥιπί-ς*, *φροντί-ς*, to which the verbs *ἐλπίζω*, *ἐρίζω*, *παίζω*, *ῥιπίζω*, *φροντίζω* correspond. Hence I cannot believe that the δ of the noun-inflexion, the sporadic character and origin of which I have discussed at Princ. ii. 278, has any special connexion with the ζ of the verbs, and hold rather that the latter is in all these cases the representative of a simple *j*, before which an involuntary δ was developed. It is not quite so easy to answer the question whether verbs like *μαστίζω*, *σαλπίζω*, *φορμίζω*, which show a guttural in the tenses beyond the present stem, have sprung from the noun-stems *μαστιγ*, *σαλπιγγ*, *φορμιγγ*, or from shorter ones, such as actually exists as a by-form for *μαστιγ*. This is a question which we can here afford to leave unsettled. That it is *possible* that in denominative verbs of this kind, to which we shall return in Chapter XVII. (p. 270 of the marginal paging), gutturals may appear which are not to be found in the noun-stem, is proved by *παίζω*, *παιξοῦμαι* (Laconians in Xenoph.), *ἔπαιξα*, *ἐπαίχθην*, *παίγνιον*, and we saw likewise at p. 237 that in the inflexion of the verbs in *-ζω* formed from interjections there are gutturals which have come from a simple *j*.

To this class of the verbs in *-ιζω* we must also add, I think, those which, like *ἀγωνίζομαι*, *ἀκοντίζω*, *ἀνδρίζω*, *κελητίζω*, *μακαρίζω*, *σωφρονίζω*, come from noun-stems ending in a consonant. In this case it seems to me most natural to regard the *ι* as a vowel produced involuntarily before the *j*, so that e.g. *ἐμποδίζω* and the identical *impedio* would have to be referred to a denominative **pad-jā-mi*, **pad-i-jā-mi*. For several of these verbs, however, other explanations are possible.

365 ### 5. Verbs in *-νω* and *-νζω*.

The following verbs in *-νω* are clearly denominatives: *ἀχλύω*, *γηρύω*, *δακρύω*, *ἐρητύω*, *ἰθύω*, *μεθύω*, *ὀϊζύω*, to which we may add *φῑτύω* = Lat *futuo*, though the corresponding noun-stem does not occur till a much later period than the verb, and also *ταύω* or *ταύζω* which is to be deduced from Hesychius's *ταῦσας· μεγαλύνας* (cp. *ταῦς· μέγας, πολύς*). That in such verbs a *j* has fallen out between the *υ* and the thematic vowel is the natural and perfectly unobjectionable conclusion suggested by the exactly analogous formation of Vedic verbs like *ṛ́ghū-já-ti* he is upright, from *ṛ́ghú-s* upright, *kratū-já-ti* he puts forth strength, from *krátu-s* strength, taken in connexion with all these derivatives, and the same assumption may be made for the corresponding Latin verbs like *acuo*, *metuo*, *statuo*. An important parallel is observable between the Greek *δακρύειν* and the synonymous Gothic *tagr-jan*, which, on the assumption that the Gk. word once was *δακρυjειν*, coincide exactly, while the loss of the *j* after the *u* in Latin is

exemplified by the Lat. *struere* as compared with the Goth. *straujan* (cp. the Skt. *stārájā-mi*). We have however a superfluity of unmistakable intermediate forms in Greek itself in the Aeolic presents in -νίω, which have been noticed above at p. 147. One of these presents is μεθνίω (Herodian i. 456), evidently a denominative, while ἀλνίω and ὀπνίω are as yet somewhat obscure. The other representative of the *j* which we should expect in this place is ζ. We have no instance though of an undoubted denominative in -νζω. It is possible that ἑρπύζω comes from a noun-stem *ἕρπυ, known to us anyway as the proper name of the Theban Ἕρπυ-ς. A direct branch of the stem is perhaps to be seen in the name of the creeping plant ἕρπυλλον, ἕρπυλλος, ἑρπύλλιον. Forms like ἑρπῦσω, εἵρπῡσα, ἕρπῡσις, ἑρπυστικός bear to ἕρπω exactly the same relation as that of ἑλκῦσω, εἵλκῡσα, εἵλκυσται, εἱλκύσθην, ἕλκῡσις, ἑλκυστάζω to ἕλκω. Notwithstanding the latter are commonly referred to a present ἑλκύω which does not occur till the latest Greek, though analogy speaks for ἑλκύζω. The remaining verbs in -νζω are almost entirely onomatopoetic verbs with a guttural in the stem, and are widely different from the formations here in question. Some of these we have met with above on p. 237.

6. Verbs in -ευω and -ουω. 366

That these verbs also once had a *j* before the thematic vowel, though not proved by the existence of by-forms with a ζ—for the awkward combination -ενζω probably does not occur except in the above-mentioned onomatopoetic φεύζω—is extremely probable on various other grounds. In the first place the already well developed and well established rule for the denominative verbs in general speaks for it. At p. 232 we saw that, though a noun-stem may as such do duty as a verb-stem, e.g. δεικνυ in δείκνυμι, the conversion of a noun-stem into a verb-stem by the addition of the thematic vowel was unheard of. And yet such a conversion must have taken place if it is to be assumed that βασιλεύ-ω came from βασιλευ without the loss of a *j*. The only imaginable explanation of such a form would be that *βασίλευ-μι was formed from βασιλευ as was δείκνυμι from δεικνυ, and that subsequently the thematic vowel came in, as in δεικνύω, on the analogy of the verbs in ω. But I know of no support for such a view. There are moreover some hints at all events that there was once a *j* here. If the diphthong ευ had stood from the first directly before the thematic vowels, it would be surprising to find it so well preserved. If *ἱερευ-ας and *ἱερευ-ες became ἱερῆος and ἱερῆες, why should not we get ἱερήω, ἱερήεις and the like? Presents with a ευ in them which have come direct from the root show a corresponding loss of sound e.g. δέο-μαι by the side of δεύο-μαι (cp. above p. 210), πλέω, πνέω, ῥέω, beside δείω, πλείω, πνείω of the *i*-class. In denominative verbs in ευω no such loss occurs. Again, we have repeatedly remarked, and shall discuss at length in Chap. XXI., p. 369 (marginal), the fact that the σ which appears to have intruded in some tenses e.g. in εἴλκυ-σ-ται, εἱλκύ-σ-θη-ν, ἐ-μνή-σ-θη-ν, κεκύλι-σ-μαι, and in a corresponding way in noun-formations e.g. πρῖ-σ-μα (pres. πρίζω beside πρίω) points to the existence at one period of a *j* which has in many instances become ζ. And this same σ occurs also in some verbs in ευω, 367
especially in κεκέλευσμαι, ἐκελεύσθην, ἐλεύσθην, the latter of which is from the monosyllabic stem λευ for λᾶϝα (λᾶας). With this too agree the primitive verbal forms πέπλευσται, ἐπνεύσθην, for we found by the side of πλέω, πνέω the forms πλεϝjω, πνεϝjω so that we have here another case where this σ confronts a *j* in

the present. For these reasons I make no doubt that Schleicher Comp.[3] 355 and Leo Meyer ii. 43 are right in referring the presents in -ευω to -ευϳω.

As to the origin of the verbs in -ευω, we must look for their starting point to the noun-stems in -ευ. It must be admitted however that but a very few of these verbs have noun-stems of this kind corresponding to them. Leo Meyer gives 44 Homeric verbs which have no noun-stems in -ευ and only 10 altogether which have, and even from these 10 we must deduct 2 or 3, for it is not till the latest Greek that ἡγεμονεύ-ς (for ἡγεμονεύω), and ὑδρεύ-ς (for ὑδρεύω) occur, and πορεύ-ς is only found in Hesych., and that with the meaning πορθμεύς, so that it is but a poor foundation for πορεύω. ἀριστεύω though, from the Homeric ἀριστεύ-ς, has been overlooked. There remain therefore but 8 Homeric verbs in -ευω which show the normal relation to the noun-stem, though there are some verbs of very common use among them; they are ἀριστεύω, βασιλεύω, ἡνιοχεύω, ἠπεροπεύω, ἱερεύω, νομεύω, πομπεύω, χαλκεύω. To these we may, it is true, add a few from post-Homeric Greek, such as ἁλιεύω, βραβεύω, γραμματεύω, ἱππεύω, σκυτεύω, τορεύω, φονεύω. But for Homeric verbs like ἀγορεύομαι, ἀεθλεύω, ἀρχεύω, βουλεύω, θηρεύω, θητεύω, μαντεύομαι, συλεύω, τοξεύω, and for post-Homeric verbs like παιδεύω, πιστεύω, χορεύω it is vain to look for noun-stems in -ευ. The related languages too give us no help whatever in respect of this whole formation. The solution of the riddle is however probably to be found in the fact that in Homer the nominal-suffix -ευ, as I have pointed out at Ztschr. iii. 78, iv. 213 is constantly added to shorter formations to strengthen them, and especially to stems in -ο, with the view of giving greater prominence to the person acting. Occasionally, as e.g. in ἡνιοχῆα, ἡνιοχῆες by the side of ἡνίοχο-ς, οὐρήων K 84 by the side of οὖρο-ς, πομπῆες, πομπῆας by the side of πομπός, Αἰθιοπῆας by the side of Αἰθίοπες, this addition is made in certain cases only. It is not sur-
368 prising therefore that this suffix should have introduced itself in just the same sporadic fashion before derivative terminations, and even before the derivative -ια of feminine epithets, as e.g. on the analogy of δυσαριστοτόκεια (τοκεύ-ς) in εὐπατέρ-ε(ϝ)-ια, and εὐρυόδε(ϝ)ια as also in the verbs with which we have here to do. It was felt pretty much that every nomen agentis in -ο *might* have a by-stem in -ευ as well. On the pattern of such a noun, i.e. *οἰνοχοεύς, which is just as conceivable as ἡνιοχεύ-ς, was formed οἰνοχοεύω, on that of *ἱκετεύς, a conceivable by-form of ἱκέτη-ς, ἱκετεύω. A very large number of the noun-stems in -ευ are designations of persons which are derived from the name of a thing and denote the man who has to do with that thing e.g. ἱππεύ-ς, οἰκεύ-ς, σκυτεύ-ς. Perhaps there were once, on the analogy of these words, such nouns as *θηρεύ-ς, *παιδεύ-ς, *τοξεύ-ς. From these, whether they actually existed or were only present to the mind as types, came verbs like θηρεύω, παιδεύω, τοξεύω. Hence their decidedly preponderating intransitive meanings (Buttmann ii. 383). The verbs in -ευω have all from the first the meaning to conduct or behave oneself after the fashion of some person or other who was denoted, at least in idea, by the suffix -ευ. The need of verbs to discharge this function evidently conduced to swell the list of verbs in -ευω. In use, these verbs come nearest to the verbs in -εω. This sufficiently explains the constant, though not always meaningless interchange between the two classes, for which see Lobeck Rhem. 199 ff. No one will try to deduce a phonetic connexion between these two formations from the fact that we find side by side ζητεύω and ζητέω, οἰνοχοεύω and οἰνοχοέω, ἐπιδημεύω and ἐπιδημέω.

There are only a few verbs in -ουω. These few appear, at least in some

cases, to be related to those in -ενω̃. Thus Hesychius's μολύειν (ἐγκόπτειν τὰς παραφυάδας), as was recognised by Lobeck Rhem. 206, is identical with the Attic μολεύειν quoted by Pollux vii. 146 from an Attic law, and explained by τὰς αὐτομολίας κόπτειν. μολεύω however stands in the same relation to (αὐτό)μολο-ς that ἀρχεύω does to ἀρχός. κολούω seems to me to be in the main rightly explained by Fick[3] i. 240, when he refers it to *κολοϝό-ς, the form to be expected as the basis of κολοβό-ς, so that it may possibly have gone through 369
the intermediate stage κολοϝ-jω, κολου-jω, and may bear to κολοβόω the same relation as that of στρογγύλλω to στρογγυλόω. It is not so easy to explain ἀκούω and ὀρούω. If this view of these verbs is correct, they have the closest resemblance to the Church-Slavonic verbs in -u-jǫ inf. -ova-ti e.g. kupujǫ inf. kupovati buy, the only difference being that here an a-sound is added in the infinitive.

II. CONSONANTAL DIVISION.

We have here to deal with derived verbs which originally had a consonant before the -jω of the present, whether that consonant is to be regarded, as in θαυμαν-jω, the primary form of θαυμαίνω, as the final consonant of the stem, or, as in καθαρ-jω, the primary form of καθαίρω, as part of the suffix (καθ-αρό-ς) by means of which the noun-stem has been formed.

1. Derived Verbs in -νω.

These have, beyond a doubt, their starting-point in stems in ν and νο. There are examples of both kinds in Sanskrit of the most transparent formation, such as *ukshaṇ-já-ti* he acts like a bull (*ukshán*), *kṛpaṇ-já-ti* he acts miserably (*kṛpaṇá*), the latter standing by the side of *kṛpā-ja-ti* and *kṛpa-já-tē*, just as χειμαίνω, and ὀνομαίνω have χειμάζω and ὀνομάζω without ν. The Greek verbs of this kind fall into three divisions, two of which are very rich and one poor. Verbs in αινω and υνω are numerous, those in ειvω rare. On phonetic grounds we will put ειvω next to αινω.

a) Verbs in -αινω.

From stems in ν, and with a preference for an a-sound, even where there is none in the noun-stem, there are formed verbs like ἀφραίνω (ἀφρον), μελαίνω (μελαν), μελεδαίνω (μελεδον), πιαίνω (πιον), ποιμαίνω (ποιμεν) and numerous derivatives from neuter stems in μαν like ἀσθμαίνω, δειμαίνω, κυμαίνω, πημαίνω, χειμαίνω. To these may be added a small number whose corresponding noun-stems seem to point to the suffix -na (νο): βασκαίνω, from βάσκανο-ς, 370
λιταίνω (by the side of λιτάζω and λιτανεύω) from λίτανο-ς (Aeschylus).

From stems in -ο and -α there come a large number, such as ἀγριαίνω, δυσκολαίνω, λειαίνω, λευκαίνω, ξηραίνω—λυσσαίνω, ὁρμαίνω, ὀργαίνω, πικραίνω, τερσαίνω (cp. the Goth. *thaurs-na-n*). The relation of these to those already mentioned is just the same as that which subsists between νομεύω (νομευ) and πιστεύω (πιστο). It is possible that for some of the nouns from which these verbs come there actually were by-stems in νο. It is as conceivable that there should have been a *λευκ-ανο-ς, or *ξηρ-ανο-ς, as that there should be ὀρφανό-ς by the side of ὀρφό-ς = *orbu-s* (Princ. i. 367), or ἐτ-ανό-ν· ἀληθῶς, σφόδρα by the side of ἐτεός, ἐτός.

What is more surprising is, that verbs in -αινω come from not a few stems

in *-ες*, and even from adjective-stems in *-ν*, as *θαμβαίνω*, *κυδαίνω*, *παθαίνω*, *δυσχεραίνω*—*γλυκαίνω*. It is conceivable that further investigation might reveal an independent origin for several of these nasals, but even then we should have to assume that the analogy, when once formed, gave the pattern for fresh formations. There can be no doubt that the simple verbs in *-αινω* in which the *ν* is movable had an influence upon these formations (cp. above p. 216 f.). There are moreover derivative verbs in the Teutonic languages, such as the Goth. *fráuj-inôn* (dominari), A. S. *glis-n-jan* (coruscare), mod. Germ. *ord-n-en* set in order, which have an *n* in the derivative syllable, while, as Jac. Grimm D. Gr. ii. 174 says, it is only 'a very few of them which presuppose a substantive in *-in*.'

b) Verbs in *-ειvω*.

There are only *ἀλεείνω*, *ἐρεείνω* of unknown origin, and *φαείνω* which must come from the stem *φαες*, and is accordingly of just the same kind of formation as *θαμβαίνω*.

c) Verbs in *-υνω*.

We hardly get any help here from noun formations. It is to be noticed, however, that some few adjective-stems in *υ* have by-forms in *-υνο*, e.g. *θαρσύ-ς θάρσυ-νο-ς* (Π 70), *ἰθύ-ς ἰθύν-τατα* (Σ 508). To regard these by-forms as older forms of the stem, as is suggested by Leo Meyer (ii. 75) and others, is extremely bold. It seems more likely to me that *θάρσυνο-ς* is derived from *θαρσύ-ς* 371 in the same way as *λιγυ-ρό-ς* from *λιγύ-ς*, or *παχυ-λό-ς* from *παχύ-ς*. A like interchange between a shorter and a longer stem may be traced in forms like *ἰδρύνθην* beside *ἰδρύω*, and *δηρίνθην* beside *δηρίω*. The twofold forms are more widely developed in *ἀρτύω* (*ἤρτυον*, *ἀρτύσω*, *ἤρτυμαι*, *ἠρτύθην*) and *ἀρτύνω* (*ἤρτῡνον*, *ἀρτυνέω*, *ἠρτύνας*, *ἀρτύνθην*), both from Homer onwards. It is therefore easiest to understand the verbs in *-υνω* which are formed from stems in *υ*, such as *ἀμβλύνω*, *βαρύνω*, *βραδύνω*, *δασύνω*, *εὐρύνω*, *ἡδύνω*, *ὀξύνω*. In this case primitive verbs of the nasal class, like *δύνω* beside *δύω*, *πίνω* beside shorter forms without the *ν*, have no doubt helped to establish the use of the *ν* as a convenient means for the formation of derivative verbs, the tendency to which grew so strong in course of time, that the modern Greeks have come to develop numerous verbs in *-ωνω* from *ο*-stems, which have driven out of use the less convenient verbs in *-οω*, e.g. *πληρώνω* = *πληρόω*.[1]

More numerous than these are the verbs in *-υνω* derived from stems in *ο*, such as *ἁβρύνω*, *ἁδρύνω*, *θολύνω*, *κακύνω*, *λαμπρύνω*, *λεπτύνω*, *μεγαλύνω*, *σεμνύνω*, *σκληρύνω*. Here the *υ* is remarkable, for to set down by-stems in *υ* for one and all of the score or so of verbs of this kind, or to ascribe the formation to the influence of the not very numerous verbs formed from stems in *υ*, is a questionable course to take. I have therefore on a previous occasion ventured to conjecture that the *ῡ* is here a weakened *οι*. In this way *ἁβρο-ν-jω* from the stem *ἁβρο* would receive the same explanation as *λυσσα-ν-jω* from *λυσσα*. The verbs in **οινω* would thus bear to those in *αινω* the same relation as is borne by those in *οω* to those in *αω*, *αζω*. We have a *ῡ* that has come from *οι* in the Ionic *ξυνός*, *ξυνήιον* by the side of *κοινός*, and a still more notorious instance in the Boeotian *υ* for the *οι* of the other dialects. I know of no definite analogy in ordinary Greek though for a *ν* in the place of an *οι*.

[1] On this point, as on that of the denominative verbs in *-νω* in general, rich material may be found in Gust. Meyer Nas. Pr. 94 ff.

There remain a few verbs whose corresponding noun-stems end in *s*, such as *αἰσχύνω*, *κρατύνω*, *μηκύνω*. It is possible that these may, as is common in the case of sigmatic stems, have modelled themselves on the analogy of *o*-stems. In one or two cases however other explanations are possible, as in that of *κᾰλλύνω*, which is perhaps directly connected with the Skt. *kaljāṇa-s*, beautiful, a derivative from *kal-ja-s* = *καλός*, and with *καλλονή* beauty. We cannot have too lively a sense, in dealing with these questions, of the possibility of such by-forms. 372

2. Derived Verbs in -ρω.

In Sanskrit we find forms like the Vedic *adhvar-já-nt* sacrificing from the st. *adhvará* sacrifice, while for other verbs of the kind in this language noun-stems with a derivative *r* can only be supposed to have existed, as is the case with *ratha-r-já-ti* he rides in a carriage (*rátha*), *sapa-r-já-ti* he reverences (rt. *sap*). The Greek formations in *ρω* are not very numerous.

a) Verbs in -αιρω.

The only verb from a stem ending in *ρ* is *τεκμαίρω*, more commonly in the middle *τεκμαίρομαι* (*τέκμαρ*, *τεκμήριο-ν*). From stems in -*ρο* there are *γεραίρω* (*γεραρό-s*), *ἐναίρω* (*τὰ ἔναρα*), *καθαίρω* and *μεγαίρω*, the last being, as Buttmann (Lexil. i. 259) saw, undoubtedly derived from **μεγαρο* (cp. *μέγαρο-ν* a room), the older form for *μεγαλο*. *ἐχθαίρω* clearly belongs to *ἐχθρό-s*, whether we suppose an **ἐχθαρο-s* formed like *γεραρό-s*, or set down the *α* to anaptyxis, as in the case of the *e* of the Lat. *ag-e-r* from **ag-ro-s*, Goth. *akr-s*. *ἐλεαίρω* has no noun-stem with an *ρ*, and *ἐλεφαίρομαι* is an obscure word altogether.

b) Verbs in -ειρω.

ἱμείρω from *ἵμερος*, *οἰκτείρω*[2] by the side of *οἰκτρό-s* like *ἐχθαίρω* beside *ἐχθρό-s*. *ἐθείρω* Φ 347 is obscure.

c) Verbs in -υρω.

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There is no doubt about *μαρτύρομαι* from the stem *μαρ-τυρ* with the by-form *μαρτυρο*, *κινύρομαι* (by-form *κινυρίζω*) from *κινυρό-s*, *μινύρομαι* (by-form *μινυρίζω*, Lat. *minurrio*) from *μινυρό-s*, while the remaining verbs *ἀθύρω*, *ὀλοφύρομαι*, *πλημύρω* (also written *πλημμύρω*, with the by-form *πλημμυρέω*) are of obscure origin.

3 Derived Verbs in -λω.

We may say just the same about these verbs as about those in -*ρω*. A few verbs in -*λω* which we might be tempted to expect to find under this head, such as *αἰόλλω*, *δαιδάλλω* we have given on p. 212 f. as primitive intensive formations. From noun-stems in -*λο* come *ἀγγελλω*, *αἰκάλλω* (*αἴκαλος* Hesych.), *ἀτασθάλλω*, *καμπύλλω*, *κωτίλλω*, *ναυτίλλομαι*, *ποικίλλω*, *στρογγύλλω* (by the side of *στρογγυλόω*),

[2] The form *οἰκτίρας* on an old-Attic inscription (Cauer *Stud.* viii. 253) has led Kirchhoff (*Monats-Ber.* 1872, p. 237) to take *οἰκτίρω* to be the real present, and this does seem to suit *οἰκτίρμων* and the Lesb. *οἰκτίρρω*; but it would be the only instance of a form of the kind. Since there can be no doubt as to its derivation from *οἰκτρό-s* we should have to suppose that in this one case an *ι* and not an *ε* developed itself between *τ* and *ρ*: **οἰκτ-ι-ρο-s*, **οἰκτιρ-jω*, and I know of no analogy for this. Ought we not rather to regard the *ῑ* in the same way as in *τῖσας*, *τῖμη*, for which we often get the diphthong, i.e. as an early corruption of *ει*?

στωμύλλω. The remainder we shall not be too bold in referring to similar formations. For instance, we have in Homer not only ἀσχάλλω but ἀσχαλάω, which brings us to *ἀ-σχα-λο, from the rt. σεχ, σχε (cp. σχο-λή). For ἰνδάλλομαι we may conjecture a *ϝινδ-αλο, formed in the same way as αἴθ-αλο-ς, τροχ-αλό-ς. ὀφέλλω (ὄφελος) comes most likely from the same stem as the Latin *opul-entu-s*. Of just the same nature are the Teutonic weak verbs (discussed by Jac. Grimm D. Gr. ii. 115) like the Goth. *mikil-jan* (= μεγαίρειν magnificare), and the mod. Germ. *gängeln* to have in leading strings, *streicheln* to stroke, *tändeln* to trifle, dally. The diminutive meaning which is here and there discernible in both languages, has its origin in the noun-stems upon which these formations are based. In a certain sense then we may compare Latin verbs like *modulāri*, *ustulare* and the **petulare* which may be deduced from *petulans* (cp. *petul-cu-s*), only that they correspond more to στρογγυλόω than to στρογγύλλω.

4. Derived Verbs in -σσω (-ττω).

These verbs fall into two groups, which we may describe, to keep the old nomenclature, as those with the guttural characteristic and those with the dental. There are, however, a number which show neither characteristic.
374 From actually occurring guttural stems we find—from stems in κ or κο: ἀνάσσω (ϝανακ and ϝανακτ Stud. iii. 115), ἐγγλύσσω (γλυκύ-ς), ἐλίσσω (ἕλιξ), θαάσσω (cp. θύωκο-ς), θωρήσσω (θώρηξ), κηρύσσω (κῆρυξ), μαλάσσω (μαλακός), πτώσσω (πτώξ), ὑλάσσω (beside ὑλακτέω, ὕλαξ), φαρμάσσω (φάρμακον), φοινίσσω (φοῖνιξ), φυλάσσω (φύλαξ), χαράσσω (χάραξ),—from stems in χ or χο βήσσω (βήξ), μειλίσσω (μείλιχος). From stems which show a dental there are far fewer: ἀγνώσσω (ἄγνωτος, late), αἱμάσσω (αἷματ), βλίττω (μελιτ), ἱμάσσω (ἱμαντ), κορύσσω (κορυθ), πινύσσω (πινυτό-ς), πυρέσσω (πυρετό-ς). The verb ἀήθεσσον stands quite alone, inasmuch as it has come from a sigmatic stem, and accordingly belongs to the list of formations in *-as-jā-mi*, which we found on p. 240 to be represented in Greek by εω. We have seen above that σσ cannot come from γ. For ἀλλάσσω therefore, and πατάσσω, and πτερύσσω we assume, instead of the actually occurring ἀλλαγή, ἠλλάγην, πάταγος, and the gen. πτέρυγ-ος, older forms with a κ, for ἀλλάσσω therefore ἀλλακο, an expansion of ἀλλο formed in the same way as the Skt. *anja-ká-s* from the synonymous *anjá*. The O. Ir. *ailigim* muto corresponds exactly to ἀλλάσσω. In this language, as I learn from Windisch, there are numerous formations of this kind which all come from adjective-stems with an original *-ka*. This class is represented in the Teutonic languages by the verbs with a *g*, discussed by Jac. Grimm D. Gr. ii. 306, some only of which, like the A. S. *ga-hâlg-jan* = to hallow (Germ. *heiligen*) come from actually existing adjectives, while others, like the O. H. G. *chriuzigôn* go on a crusade, *bimunigôn* admonere, either never had, or had lost corresponding adjectives of this kind, as is especially the case with modern German verbs like *steinigen* (stone), *endigen* (finish), *peinigen* (torment), *beschönigen* (gloss over). These common German formations are calculated to throw much light on the formation of derivative verbs in general. Latin has verbs like *claudicāre*, *albicāre*, which exactly correspond to the Teutonic verbs in *-igôn* and what in Greek would be verbs in *-κόω*.

Some of the Greek verbs in σσω show clear signs of a guttural stem in other tenses or in cognate noun-forms, without enabling us to deduce a definite primary noun, as in the case of βδελύσσομαι (βδελυχρό-ς), σπαράσσω (σπαράξαι) and others. Several of the less comprehensible of these we might perhaps suppose

to have come from adjectives with a κ analogous to the Latin adjectives in *-ax* and *-ox* like *vorax*, *velox*. Greek itself is not altogether without such formations, 375
as is shown e.g. by *νέαξ*, used by comic poets with a comical force as a substitute for *νεανίας* (cp. *νεοχ-μό-ς*), and in the same way *νέβραξ* young animal, from *νέβρο-ς*, *λείαξ* from *λεῖος* smooth (Hesych.), *ψίλαξ* from *ψιλός* bald. In this way we might suppose an adj. **ἐγρή-ξ* for *ἐγρήσσω*, and an adj. **ἀφάξ* for *ἀφάσσω* feel and the like. For some of the verbs in *-υσσω* we may deduce forms in *-υκο*, which, as Ernst Kuhn (Ztschr. xx. 80) has shown, correspond to Sanskrit adjectives in *-ūka*, as e.g. by the side of *μορμολύσσομαι* we find the subst. *μορμολύκειον*, and by that of the late *μαρμαρύσσω*, from which *ἀμαρύσσω*[3] seems to be not widely different, there is *μαρμαρυγή* with a γ softened from κ.

The verbs in *-ωσσω* (*-ωττω*) are especially numerous. They denote a tendency, generally of an unhealthy nature, if not an actual defect. Cp. Lobeck Rhem. 248. Among others we may mention *ἀμβλυώσσω*, *ἰκτερώσσω*, *λιμώσσω*, *νεώσσει* (Hesych. *καινίζει* he has the reformation-sickness), *ὀνειρώσσω*, *τυφλώσσω*, *ὑπνώσσω*. The meaning is not equally prominent in all cases: e.g. *ὑγρώσσων σφόγγος* Aesch. Ag. 1329 means simply a moist sponge, and *ὀνειρώσσω* dream. These verbs show but scanty traces of gutturals in the other tenses and in derived words, e.g. *ὀνείρωξις* (Plato), *ὀνειρωγμός* (Aristot.), *ὠνείρωξε* (Buttmann i.[2] 375). On this fact was based the conjecture I expressed in the Symbola philolog. Bonn. i. 281, that these verbs might possibly come from an earlier *-ωτ-jω*, and so correspond to Latin verbs of a similar use like *balbū-tĭo*, *caecū-tĭo*. Guttural inflexion forms no insuperable obstacle to this, as it might very easily have crept in later on the analogy of the numerous presents in *σσ* (*ττ*) which come from guttural stems. Anyhow the ω is of the same character as that in *τυφλω-τό-ς*, *ὑπνω-τι-κό-ς*.

[3] *ἀμαρύσσω* seems to bear to *μαρμαρύσσω* the same relation as that of *ἀγείρω* to *γαργαίρω* (p. 215).

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CHAPTER XII.

THE E-CLASS AND THE RELATED FORMATIONS.

It was indispensable that we should review the *i*-class in all its ramifications and in its connexion with the derivative verbs before attempting to explain what looks a far simpler phenomenon, which is connected at all events with the formations described in the last chapter. The alternations, within a single verb, between a shorter stem and one expanded by an *e*-sound, is one of the commonest of irregularities. We met with a case of such a twofold formation as that of *μαθε* (*μαθή-σομαι*) beside *μαθ* and *μανθανο* on p. 178. We may here distinguish between four modes in which this duality manifests itself.

1) The *e*-stem appears in the present, while some or all of the other tenses come from a shorter stem, e.g.

δοκέω *ἔδοξα.*

We place this kind first because it bears the most resemblance to the cases of present-expansion already discussed.

2) The shorter stem is peculiar to the present, while the expanded or *e*-stem appears in other tenses, e.g.

μένω *μεμένη-κα.*

3) Both formations occur side by side in the present itself, e.g.

αἴδομαι *αἰδέομαι.*

4) Where there is a present expanded in some other way, and also the pure short verb-stem in some other tense, and a stem with no other expansion than an added *e*-sound occurs in a third.

ἐ-γεν-ό-μην *γί-γνο-μαι* *γενή-σομαι.*

It is obvious that these four processes, which, to use the old gram-
marians' expression, coincide in showing the *πλεονασμός* of an *ε*, are very
377 similar, and we must see if we cannot explain them all on a single principle.

The related languages yield us some though not many phenomena which may be compared with these processes. Inasmuch as we have compared the derivatives in *-εω* with the Sanskrit verbs in *-ajāmi*, we can adduce something analogous, for processes 1) and 2) at all events, from this language. As a rule the *-aja* which is the characteristic of derivative verbs pervades all tenses, but the reduplicated aorist forms an exception, being made straight from the root. Hence the aorist *a-kū-kura-t* he stole bears to the present *kōrājā-mi* just the same relation as that, for instance, of the Homeric *ἔστυγε* to the present *στυγέω*. In another case

we find a form of the 10th class standing side by side with one of the first, though there is no great difference of meaning between the two, e.g. *dharshá-jā-mi* venture on a thing, beside *dhárshā-mi*, the former of which we compared on p. 229 to the Gk. θαρσέω, while the latter, in Greek letters, would stand as *θαρσω.

Latin shows a still closer resemblance. This resemblance was remarked by Lobeck, who, on Buttmann's Ausf. Gr. ii. 52 expresses himself in words which are of significance in the history of grammar, when he says: 'The interpolation of an ε, so natural in itself, favoured the purposes of metre, and the propensity to full-sounding forms; both in the Latin vocalic words like *cieo*, *clueo*, *abnueo* (*conniveo*), *tueor*, and in the Greek δαιέω, κνέω, λοέω, θαέομαι.' Here is a scholar, as a rule so strict, so disinclined to rationalise, ready at a moment's notice with an explanation which a moment's reflection will explode! It was going rather too far, to credit Greek, and not only Greek but Latin, with having saddled themselves with a pack of idle vowels all for the sake of greater fulness of sound. Lobeck shows in this an utter want of the historical perception of language as a growth of popular use and convenience. He thought of the 'nominum impositores' pretty much as learned poets, and was as ready to imagine them adding a sound or two on occasion to their formations, as he might be to imagine a painter adding a few touches to his picture. For all this we need find nothing to object to the particular piece of comparison between the two languages which Lobeck here 378
indulged in. The comparison is a just one, and may even be widely extended. With the exception of the few verbs in *-eo* which, like *neo*, *fleo*, *dē-leo* have come straight from the root, all Latin verbs of the *e*-conjugation, as is well known, lose their *e* in the perfect and in the passive participle, so that δοκέω ἔδοξα finds an exact counterpart in *doceo*, *doc-ui*. Struve, who in his treatise 'über die lateinische Declination und Conjugation' (1823) was probably the first to recognise this, states the matter thus on p. 188: 'the larger number' (of the verbs of the 2nd conjugation) 'borrowed the shorter terminations from the third conjugation.' He was so far right at least in this, that it is really a case of a return to more primitive stems. The phenomena of this kind in Latin may now be found collected in Corssen ii.[2] 293 and in Neue ii.[2] 422 ff. Well attested twofold forms, of just the same kind as ἕλκω ἑλκέω are *cio cieo*, *cluo* (κλύω) *clueo*, *fervo ferveo*, *fulgo* (φλέγω) *fulgeo*, *nuo nueo*, *olo oleo*, *scato scateo*, *tergo tergeo*, *tuor tueor*. There is no instance in Latin of the anomaly given under 3), i.e. the appearance of an *e*-stem among the other tenses (μένω μεμένη-κα). The appearance of the *i*-stem however, in *peto petī-vi petītu-s*, *quaero* (*quaeso*) *quaesī-vi quaesītu-s*, is analogous.

German too, with its interchange of the so-called 'strong' and 'weak' forms, presents us with much which is analogous, the only difference being that here the 'weak' forms seem to be, much more decidedly than in Greek, the later growth which gradually forced the older forms into the background.

The Slavo-Lithuanian languages are specially characterised by the formation of a so-called second verb-stem. In a large number of verbs this second stem is in Lithuanian characterised by *ė*, and e.g. the Lith. future *gélbė-siu* bears to the present *gélbu* (I help), precisely the same relation as that borne by the Gk. εὐδή-σω to

εὕδω. In Church-Slavonic *ě* is occasionally used to form the second stem, though both languages differ in so far from Greek in the matter, that in them the infinitive, which in Greek stands in the closest connexion with the remaining present-forms, is the main representative of the second stem. Since however this infinitive is of the same formation with the Greek nouns in *-τι-ς*, *-σι-ς*, the Ch.-Sl. *vědĕti* know is actually related to *věste* ye know in exactly the same way that εἰδη-σι-ς is to ἴσ-τε.

379 The similarity of formation thus shown to exist between the related languages, however noteworthy, hardly entitles us to conclude that the Greeks received this peculiarity, like most of the characteristics of stem-formation which we have discussed hitherto, from an older pre-Hellenic period. To begin with, there is a lack of the necessary cases in which the like twofold formation is to be found in different languages in the same stem. We shall not be far wrong, if, instead of this, we regard the *e*-class, to keep this convenient name for all the formations which belong here, as of no very great antiquity, and suppose that it was not till after Greek became a separate language that its somewhat extensive development took place. It may even be questioned whether all these processes which in their effects are so similar are to be explained on the same principle throughout. For this reason I have thought it safer to give the *e*-class by itself under this head, and not to be in too great a hurry to incorporate it with the *i*-class, although the two are obviously related. At the same time I am, on the same account, reluctant to separate the various phenomena here in question, which are in principle at least of a similar kind.

We have first to deal with the first division of the class, i.e. with the presents characterised by the addition of an ε. With respect to forms like δοκέω, γαμέω, and ὠθέω I conjectured in my Tempora and Modi pp. 92 and 95 ff., that their ε has come from a *j*, and that consequently this formation is identical with the fourth or *j*-class. The fact that the original palatal spirant has occasionally taken the form of an ε in Greek is beyond a doubt, and has been established at some length by me at Princ. ii. 239 ff. κενεό-ς (by the side of κεινό-ς and κενό-ς)=Skt. *çūnjá-s* primary form *kvanja-s*), and Doric futures like πραξεῖς by the side of the 1st sing. πραξίω and the Skt. *dā-sjă-mi* are the clearest proofs of this change of sound. I therefore held to this explanation of the presents in question in the 'Elucidations' (Eng. Trans. p. 146) as being phonetically unassailable, though I added there that the principles of word-formation would not admit of its application to all the forms, and that on this account the question, whether an ε of this kind in the present tense was to be explained in this or another way, must often remain an open one.

380 In other words the question comes to this; did the *-εω* come from an older *-jā-mi* or from *-ajā-mi*? It being shown to be phonetically possible that *-εω* should have come from *-jā-mi*, we shall hold this origin the probable one in cases where the related languages, or Greek itself, point to forms with a simple *j*, and presuppose *-ajā-mi* on the other hand, where there are decided traces of a denominative formation. Unfortunately there are a number of forms about which both sources of information yield us nothing at all, and we can never get beyond a probability one way or the other.

The three active presents κῠρέω (from Aeschylus onwards), ξῠρέω, and μαρτῠρέω stand beside κύρω, κῑ́ρομαι, ξῡ́ρομαι (not till Plutarch), and

μαρτύρομαι. It is natural to conjecture, that the primary forms κυρjω, ξυρjω, and μαρτυρjω took two different directions, one resulting in an assimilation of the j (*κυρρω) which afterwards, when ρρ became ρ and the vowel was lengthened in compensation, disappeared entirely; the other in a change of j to ε, in which form it survived for a longer time. It is true that forms like κὔρῆσαι (as early as Hesiod) and ξυράω should make us cautious, as they suggest the possibility that verbs in εω may have existed at an early period by the side of the more primitive formations.— ὀρέοντο, at B 398 ἀνστάντες δ' ὀρέοντο and Ψ 212 τοὶ δ' ὀρέοντο, is evidently an imperfect from the rt. ὀρ, the aorist of which is ὦρτο, and is consequently a by-form of ὄρ-νυ-μαι of a different present-formation. It is very natural to compare it with *or-i-untur*, in which the *i* (cp. *ortu-s*) is just as movable. On the other hand there is the analogy of the stem στορε (ἐστόρεσα) beside στορ in στόρ-νυμι.—In the case of ὀ-μῖχ-έω by the side of the aor. ὤμιξα we might appeal to the Lat. *mē-jo*=*mēig-jo* in support of the view that the -εω comes from *-jā-mi*. Beside πατ-έο-μαι Hesychius has (cp. above p. 221) preserved the form πάσσεται, which points to πατ-jε-ται (Princ. i. 335), while the corresponding Gothic *fôd-ja-n*, inasmuch as it is a weak verb, points to πατ-εjο-μαι.—γη-θ-έω beside γέ-γηθ-α and ἠ-θ-έω (sift) beside ἠθ-μό-ς, both from shorter roots expanded by a θ, might be compared with ἐσ-θίω in support of the view that the ε and the ι are representatives of a j. But by the side of γη-θ-έω stands the Lat. *gaud-eo*.—αἱρέω (Princ. ii. 180), with the Cretan by-form αἱλέω must undoubtedly be referred to a rt ϝαρ with its by-forms ϝαλ and ϝελ. The diphthong presents some difficulties, but these are removed at 381
once by the supposition that the primary form was ϝαρ-jω, in which case we should have to assume the usual epenthesis to have taken place. We cannot be quite sure of this though, as there are no distinct parallels to the word in the related languages.

In distinction to these there is another class of these forms which we shall with more or less certainty assume to have come from noun-stems, and consequently to contain the regular derivative εω. This is above all the case with χραισμέω, which undoubtedly presupposes a stem χραισμο for χρα-σι-μο (cp. χρήσιμο-ς), with πεκτέω (cp. above pp. 162 and 168), ῥιπτέω, which has been discussed on p. 162, and probably for φιλ-έω in spite of the Homeric ἐφίλατο, to which a present *φιλλω would correspond, and this could as well be a denominative from φίλο-ς as ποικίλλω from ποικίλο-ς. It may be doubted whether δοκέω can find a sufficient support in the δόκο-ς which is only used by philosophers, or in the glossematic δοκή, although δόκι-μο-ς presupposes a noun-stem just as much as πόρι-μο-ς or τρόφι-μο-ς. In the case of γαμέω however, as of δουπέω and κτυπέω it can hardly be doubted that they came from γάμο-ς, δοῦπο-ς, κτύπο-ς, as also ῥιγέω from ῥῖγος. δατέομαι (cp. Ch. XXI. p. 369 marg.) bears precisely the same relation to ἀποδάσσεται, δάσομαι, δάσασθαι that πατέομαι does to πάσσεται. The ε of κοέω with the aor. ἔ-κο-μεν (Princ. i. 186) is anyhow, as we saw at p. 240, of the same nature as that of the Lat. *cav-eo*, and that of λοέω beside λούω as that of the *a* in the Lat. *lavā-re*. We must take care to notice, on the other hand, that in some presents in εω by the side of ω the vowels are by no means such as suit the supposition that the preceding stage was a noun. γεμέω can have nothing to do with γόμος, nor ἑλκέω with ὁλκή. Nor can the like assumption be made with any probability for μεδέων by the side of

μέδων. In general it can hardly be denied, that within certain limits a kind of analogy arose for by-forms in -εω by the side of forms in -ω, without the makers and users of such forms being conscious of definite noun-stems to correspond.

We will now proceed to review the individual verbs of the first division. It is to be noted that the language showed an extraordinary vacillation between the shorter and the longer stem, and that the num-
382 ber of twofold forms is very great, and that they sometimes both occur in the same periods, and are even used by the same authors.

1) Presents in -εω with Forms from a shorter Stem in other Tenses.

1) αἱρέω common to all Greek from Homer onwards. The stem αἱρε also occurs with the ε short in ἠρέ-θη-ν (since Aeschylus), αἱρε-θή-σομαι, αἱρε-τό-ς (Hdt. Plato), with the long η in αἱρήσω (Il.), ἀρ-αίρη-κα (Hdt.), ἤρη-μαι (Aesch.), while a shorter stem underlies the aorist-forms εἷλο-ν, ἑλ-έ-σθαι and the late fut. ἑλοῦμαι.[1]

1b) ἀλιτήμενος clearly an Aeolising participle like φιλήμενος, only δ 807 and Hes. Scut. 91, by the side of the forms ἤλιτον, ἀλίτεσθαι which are commoner in poets.

2) γαμέω Homeric both in the active and the middle. In this case the *e*-stem with a short vowel is only represented by γαμετέον (by the side of γαμητέον) unless we count the futures γαμῶ, γαμοῦμαι; that with the long vowel in earlier times, besides the above-mentioned γαμητέον, only by γεγάμη-κα (Hdt. Aristoph.), which is joined in later times by γαμήσομαι and the like.—On the other hand we have the aor. ἔ-γᾱμε (Pind.), ἔγημε, ἐγήματο from Homer onwards from the stem γαμ.

3) γεγωνέω almost exclusively poetical from Homer onwards (γεγωνεῖν M 337) with the by-form γεγωνίσκω, mentioned on page 196, which is obviously derived from the perfect γέγωνα of present meaning, the only form from the shorter stem. The *e*-stem occurs also in γεγωνήτω (Eurip.), γεγωνῆσαι (Aesch.).

4) γηθέω poetical from Homer onwards. The *e*-stem occurs also in γηθήσω, γήθησε, by the side of γέγηθα (Pind. γέγᾱθε) from the shorter stem in the same poets, and in isolated instances in prose. In quite late authors (Sext. Empir., Anth., Qu. Smyrn.) there is also γήθομαι.

5) δοκέω in general use from Homer onwards, with δόκησε (υ 93). Post-Homeric but good Attic are the forms δόξω, ἔδοξα, δέδοκται, ἐδόχθην from the shorter stem, alternating in poets and Herodotus with such forms as δοκήσω (Aesch. Pr. 386), ἐδόκησε (Pind.), δεδόκηκε (Aesch. Eumen. 309), δοκηθείς (Eurip. Bacch. 1390).

383 6) (γ)δουπέω. The present-stem occurs only at Eurip. Alc. 104 and in late poets. The aorist ἐ(γ)δούπη-σα is common in Homer, with δεδουπώς (δεδουπότος Οἰδιπόδαο Ψ 679) from the shorter stem. At Anth. vii. 637 there is κατέδουπε.

7) ἠθέω sift. The present occurs in Plato, and there is the aor. ἦσα from the st. ἠθ, which is quoted in Steph. Thes. from Hippocrates, and the common substantive ἠθ-μό-ς. Still ἠθημένος and ἠθήσατο occur from Plato onwards.

8) θηλέω a Homeric present for the ordinary Greek θάλλω mentioned

[1] ἐπ-αυρέω has been mentioned on p. 195.

on p. 211, with the perf. *τέθηλα* (Pind. *τέθᾱλε*), *θηλήσει* (A 236), *θάλησα* (Pind.).

9) *κεντέω* makes all its forms (*κεντήσω*, *ἐκέντησα*, *κεκέντημαι* etc.) regularly from the st. *κεντε*. The shorter stem is only represented by the *ἅπαξ λεγόμενον κέν-σαι* Ψ 337 and by noun-forms like *κόντ-ο-ς*, *κέν-τωρ* (for *κεντ-τωρ*), *κέν-τρο-ν*.

10) *κτυπέω*. *κτυπέει* N 140 and also in Attic writers, aor. *κτύπε* P 595, *ἔκτυπεν* Soph. O. C. 1456 by the side of *κτύπησε* ib. 1606.

11) *ὀμῐχέω* Hes. Opp. 727, with *ὤμιξεν* Hipponax fr. 55 B.[3] and *ὄμιχμα*. Cp. above p. 261.

12) *ὀρέοιτο* only in the two passages in Homer mentioned on p. 261.

13) *πατ-έο-μαι*. The present is first found in Herodotus, and the aorist *ἐπασάμην* occurs in Homer, Herodotus, and Attic poets: *πάσαντο* A 464, *ἐπασσάμεθ' ι* 87, *πάσασθαι* Aristoph. Pax 1281 by the side of the plupf. *πεπάσμην* Ω 642 and *ἅπαστος* δ 788. Cp. above p. 261.

14) The imperat. *πίει*, common on cups by the side of *ἔ-πιο-ν*, *πῖ-θι*, *πί-νω* cp. Roscher Stud. iv. 194.

15) *ῥῖγεω*. The present is only found in Hipponax and Pindar. In Homer (e.g. Π 119) and Sophocles occur *ῥιγήσω*, *ἐρρίγησα*, *ῥίγησεν*, while the shorter stem is represented by the perf. *ἔρρῑγ'* H 114, conj. *ἐρρίγῃσι* Γ 353; *ἐρρίγει* ψ 216, may be either imperf. or pluperf.

16) *στυγέω*. *στυγέουσι* H 112, also in Hdt. and Attic poets, while from the stem *στυγ* are formed the aorists *ἔστυγον* κ 113, P 694 and *ἔστυξα* (*στύξαιμι* λ 502), the perf. *ἔστυγμαι* (Hesych.), the passive future *στυγήσεται* Soph. O. R. 672, and noun-forms like *στύγος*, *στυγ-νό-ς*. Still, after Homer, there occur also *ἀπεστύγησα* (Soph. O. C. 692) 384
ἀπεστυγήκασι (Hdt. ii. 47), *στυγηθέν* (Aesch. Sept. 692) and the like.

17) *φιλέω*. The regular forms of the *e*-conjugation are too common to need confirmation. From the shorter stem are formed only *ἐφίλατο* E 61, *φίλατο* Υ 304, Imperat. *φῖλαι* E 117, *φίλωνται* hymn. in Cerer. 117. Forms of the kind occur in imitators of the old Epos. The Byzantine *πέφιλμαι* hardly comes into consideration.

18) *χραισμέω*. As we ought perhaps to regard *χραισμεῖν* in Homer (e.g. A 589) as an aorist, we must go to Nicander (Ther. 914 *χραισμεῖ*) for the present. Along with the regular *e*-forms *χραισμησέμεν* (Φ 316), *χραίσμησεν* (Π 837) we find the aorist *ἔχραισμε* Ξ 66, *χραῖσμε* Π 144, *χραίσμῃ* O 32 from the shorter stem.

19) *ὠθέω*, from Homer onwards (γ 295) very frequent in both active and middle. From the shorter stem come *ἀπώσει* (A 97), the Att. *ὦσω*, *ὦσομαι*, *ἔωσε* (Π 410), *ὦσε* (E 19), *ὦσαντο* (Π 592), the Attic *ἔωσα*, *ἐωσάμην*, *ἔωσμαι*, *ἐώσθην*, *ὠσθήσομαι*, *ὠστός*, *ὠστέος*, while Attic poets also have *ὠθήσω* (*ἐξωθήσομεν* Soph. Aj. 1248), and in late prose we find *ὤθησα*.

2) Presents without an *ε* by the side of other Forms with *ε* or *η*.

Out of the considerable number of the verbs which belong to this division, we will reserve such as show in the present an expansion of another kind, which does not appear in the *e*-forms as well, e.g. *ῥεω ῥυήσομαι*, *μανθάνω μαθήσομαι*, for the fourth division. The forms with which we have here to deal are of the most various kinds. The simplest

case is that in which the present-forms have a simple stem and the other tenses a stem expanded by the addition of an ε e.g. *μέλει μελήσει, νέμω νενέμηκα, ἐθέλω ἐθελήσω.* Here and there comparison can be made with verbs in the related languages. With *μεμένηκα* we may compare the Lat. *mane-o.* The forms *ἐδ-ήδε-ται* (Chap XVI. p. 384 marg.), *ἐδ-ήδο-κα, ἠδέ-σ-θη-ν* belonging to *ἔδω* may be compared with the Skt. *ādá-jā-mi*, the causative of the rt. *ad*, with the meaning 'give food to.'

In other cases the present shows a less primitive character. It is possible that *εὕδω, κήδω, οἴχομαι* are petrified presents of the lengthening class; anyhow their diphthongs extend into the tenses with an *e*-stem: *εὐδήσω, κηδήσω, οἰχήσομαι.* One of these presents can be connected with an
385 analogous formation in the related languages: from the intensified stem *ϝειδε* is formed the fut. *εἰδήσω*, and the stem *ϝειδε* also forms the basis of the moods of the perf. *οἶδα* of present meaning (*εἰδέω, εἰδείην*) and is there restricted to the meaning know. The Skt. *vēdájā-mi* is not merely causative, but also means know, the Goth. *fair-veit-jan* preserves the physical meaning see, and the Ch.-Sl. *vědě-ti* which has been referred to on p. 260, agrees in form and meaning with the Greek *εἰδέναι. εἰδήσω* is therefore properly the future of an **εἰδέω* which corresponds to the above-mentioned *vēdájā-mi.* From a present of the *t*-class we get *τυπτήσω*, from what we conjectured to be a present of the *n*-class *βουλήσομαι*, and from a present of the inchoative class *βοσκήσω.* The *i*-class in its various ramifications furnishes a larger contingent: *κλαίω κλαιήσω, μέλλω μελλήσω, ὀφείλω ὀφειλήσω, χαίρω χαιρήσω, ἵζομαι καθιζήσομαι, μύζω μυζήσω, ὄζω ὀζήσω.*

It is obvious that all these *e*-forms have not come from the verb-stem but from its expanded form, the present-stem. So far they bear the stamp of a not very primitive character, and have in many cases clearly become extended gradually as the language developed by a convenient imitation of older types. Two causes were clearly at work in the multiplication of these forms. First, phonetic necessity or convenience (cp. Lobeck on Buttmann ii. 44). From stems like *ἀλεξ, αὐξ, ἀχθ, ἑψ, ἀλθ* there was no possibility of making a form which should be recognisable as a future or an aorist without the help of this convenient ε. From forms like *αἰδ, κηδ, περ*, while it is conceivable that there should have been made forms like **αἴσομαι*, **ἔκησα*, **πέσομαι*, it is clear that they would not have been so recognisable as *αἰδέσομαι, ἐκήδησα, πετήσομαι.* The other cause was the effort to distinguish one form from some other. It was only by the help of the ε added to the stem that *οἰήσομαι* (*οἴομαι*) could be distinguished from *οἴσομαι* (*φέρω*), *ἐρρήσω* (*ἔρρω*) from *ἐρῶ* (*εἴρω*), *δέησω* (*δέω* lack) from *δήσω* (*δέω* bind), *ἀχθέσομαι* from *ἄξομαι* and *ἀχθήσομαι, ἐμαχεσάμην* from *ἐμαξάμην* (*μάσσω*), *παιήσω* (*παίω*) from *παίσω* (*παίζω*). Pott in his Et. Forsch. ii.[2] 957 has collected instances of this kind. Of the variation in the quantity of this *e*-sound it will be time to treat when we come to the tenses in question. All we need notice here is that the short ε is very rare. The only forms among those which are to be given imme-
386 diately which have the vowel short throughout are *ἀχθέσομαι, ἀχθεσθῆναι.* A vacillation between a short and long vowel is to be seen in *ἀκηχεμένος* and *ἀκαχημένος, ἄλθομαι ἀλθήσομαι ἀλθεσθῆναι, μένω μενετός μεμένηκα, μάχομαι μαχήσατο, μαχέσασθαι* and a few others. Where the vowel is short it is tempting to suppose that it was an auxiliary vowel, and if so, to compare the Gk. ε with the *i* which meets us sporadically to so large

an extent in the tense-formation in Sanskrit e.g. *a-vēd-i-sha-m*, the aorist of the rt. *vid*, *tar-i-shjā-mi* the future of the rt. *tar*. But this *i* itself needs to be examined more closely and ought scarcely to be so decidedly pronounced to be a purely phonetic element as is usually done. In the case of the Greek *e*-sound, prevailingly long as it is, it seems to me now far more probable that the whole phenomenon is due to a confusion of the derivative with the primitive formation, and that the variation in quantity is connected with the variation between forms in *εω* and *εζω*, *ιζω* discussed on p. 241 ff. We will now give without further subdivision the individual forms which fall under this head.

1) *ἀλέξω*. In Homer we find active and middle forms like *ἀλεξέμεν* (Γ 9), *ἀλεξώμεσθα* (Λ 348) by the side of the fut. *ἀλεξήσεις* (I 251), the aor. *ἀλεξήσειε* (*γ* 346), and Hdt. has *ἀλεξήσομαι*. *ἀλέξομαι* as a future (Soph. O. R. 171) and *ἀλέξασθαι* (O 565) belong to the stem *ἀλκ* with an unconsciously developed *ε* (cp. *ἄλ-αλκο-ν*).

2) *ἄλθομαι*. *ἄλθετο* E 417, *ἀπαλθήσασθαι* Θ 405. Cp. *ἀλθήσκω*, *ἀλθίσκω* p. 194.

3) *αὔξω* (Hom. *ἀέξω* only in the present) by the side of *αὐξάνω*, fut. *αὐξήσω*, *αὐξήσομαι*, aor. *ηὔξησα*, pf. *ηὔξηκα*, *ηὔξημαι*, pass. aor. *ηὐξήθην*, verbal adj. *αὐξητό-ς*, all well attested in Herodotus and Attic writers. In late prose (Plutarch, Dio Cassius) there occur isolated and hence questionable traces of a present *αὐξέω*, and *αὐξούμενος* is found in the iambic inscription from Megara C. I. 1066. The *e*-forms correspond to the Skt. causative *vaksháj-jā-mi* (let grow). Cp. p. 181.

4) *ἄχθομαι*. The present-forms are the only ones in use in Homer, but in Attic times we find (*οὐκ ἀχθέσει* Aristoph. Nub. 1441) the fut. *ἀχθέσομαι* and the passive forms *ἠχθέσθην* (Thuc.) and *ἀχθεσθήσομαι* 387
(Xen. Plato). *ἀχθήσας· γομώσας* (Hesych.) shows a variation in meaning as well. Veitch notices isolated traces of *ἀχθέω* in late authors.

5) *βόσκω* in Homer (O 548) by the side of *βοσκήσεις ρ* 559. Other forms with *η* are rare and mostly late, *βοσκητέον* Aristoph. Av. 1359.

6) *βούλομαι*. Homer has only present-forms (among which are *βόλεσθε*, *ἐβόλοντο*) and the pf. *προβέβουλα*. These are gradually joined by one or another *e*-form. *βουλήσομαι* (first in the hymn. in Apoll. Pyth. 86), *ἐβουλήθην* (from Sophocles onwards), *βεβούλημαι*, *βουλητός*, all in use with Attic writers, later *βουληθήσομαι*. Cp. also *βούλησις*, *βούλημα*.

7) *γράφω* only belongs here in virtue of the perf. *γεγράφηκα* which the Atticists reject, but which Lobeck (ad Phryn. p. 764) defends. Kühner (s. v.) points out that the best MSS. of Xenophon Anab. vii. 8, 1 have *γεγραφηκότος*.

8) *δέω*. On p. 210 we met with the present form *δείω* for **δεϝjω*. We presupposed however the existence of *δεύω* (Homeric *δεύομαι*, *ἐδεύετο* A 602) and **δεϝω* as early by-forms of another present-formation. Homer has also the aor. *ἐδεύησεν ι* 540 by the side of *ἔδησεν* (*ἐμεῖο δ' ἔδησεν ἀρῆς ἀλκτῆρα γενέσθαι* Σ 100). In Attic prose *δεήσω*, *δεήσομαι*, *ἐδέησα*, *δεδέημαι*, *ἐδεήθην* are common.

9) *διδάσκω*, *διδασκῆσαι* Hes. Opp. 64, *διδασκήσαιμι* hymn. in Cer. 144, cp. Pind. Pyth. 4, 217.

10) *ἔδω*, to this present-form, which is identical with the Lat. *edo* and is almost exclusively confined to poetry (from Homer onwards, Z 142), the Attic writers made from an *e*-stem the perf. *ἐδ-ήδο-κα*, *ἐδ-ήδε-σ-μαι*

(Aristoph. Plato), Homer ἐδ-ήδε-ται (χ 56), Hippocrates the aor. ἠδέ-σ-θην (as if from *ἐδεζω a by-form of *ἐδεω). Cp. p. 264.

11) ἐθέλω. From Homer onwards (e.g. Η 364) with ἐθελήσω (Σ 262), ἐθέλησεν (Σ 396). In Attic writers there is also ἠθέληκα (Xen.). We need not notice here the disappearance of the initial ε. Cp. also θέλημα, θέλησις and ἐθελοντής.

12) *εἴδω, not used in the active, mid. εἴδομαι, fut. εἴσομαι (εἴσεαι
388 Φ 292) and εἰδήσω (εἰδήσεις η 327), the latter in Hdt. etc. The same stem occurs in the perf. conj. εἰδέω, Opt. εἰδείην. Cp. p. 264.

13) ἔρρω. The present is of common occurrence from Homer onwards (ἐρρέτω Υ 349, ἔρρετε Ω 239). Also ἐρρήσω (ἐρρήσεις, hymn. in Merc. 259) with ἤρρησα in Aristoph. (Ran. 1192) and the adv. ἐρρεντί (Alcaeus Ahr. Aeol. 142).

14) εὕδω, more commonly καθεύδω. The present forms, used as early as Homer, are joined from Aeschylus onward (Ag. 337) by εὑδήσω, καθευδῆσαι, καθευδητέον.

15) ἔψω in Herodotus and Attic writers, with ἑψήσω, ἥψησα and the corresponding middle forms, also ἑψηθῇ (Hdt.), later ἥψημαι. The verbal adj. ἑφθός is found in Euripides, ἑψητός in Xenophon. Cp. ἕψησις, ἕψημα. In Hdt. the M.SS. give once or twice the form ἔψεε which however is rejected by the later editors, nor do ἑψέω and the like appear to be firmly established anywhere. Cp. Veitch p. 258, Kühner p. 828.

16) ἵζω, καθίζω. The present-forms, which are Homeric, have the fut. καθιζήσομαι (Plato Phaedr. p. 229), and later (Dio Cass.) καθιζήσας, ἵζηκα, καθιζηθείς. Cp. ἱζάνω above p. 182.

17) κέλομαι poetical from Homer onwards (Ο 138) with the fut. κελήσεται (κ 296), aor. κελήσατο Pind. Ol. 13, 80, Epicharmus ap. Athen. vii. p. 282.

18) κήδω, κήδομαι from Homer onwards (Ρ 550, Α 56) with the fut. κηδήσοντες Ω 240, ἀποκηδήσαντε Ψ 413. ἀκήδεσα has been discussed on p. 264. In Aeschylus (Sept. 136) there is found the imperat. mid. κήδεσαι with the short vowel.

19) κλαίω belongs here only in virtue of the fut. κλαιήσω which appears in and after Demosthenes by the side of the common κλαύσομαι (Dem. 21, 99, Hyperides c. Demosth. p. 352 Sauppe, p. 19 Blass), for which the variant κλαήσω has at Dem. 19, 310 been generally adopted by other editors.

20) μέλω, especially in the 3rd sing., common to all Greek (μέλω ι 20, μελέτω Ω 152), mid. μέλομαι, Epic 3rd sing. μέ-μβλε-ται Τ 343, Ep. perf. μέμηλε (Β 25, Hes.), Pind. μεμᾱλώς, while from the stem μελε are formed the fut. μελήσει Ε 430, μελήσεται Α 523, and the Attic ἐμέλησε, μεμέληκε, μεληθείς (Soph.), μελητέον, and in late poets μεμέλητται. Cp. ἐπιμελέομαι and the nouns μελ-έ-τη, μέλη-μα.

389 21) μέλλω, common in the present-stem from Homer onwards, but the forms from the *e*-stem, μελλήσω, ἐμέλλησα, μελλητέον do not occur before Attic prose. Only ἠμέλλησα occurs as early as Theognis 259.

22) μένω. To the common and Homeric present, future (μενέω μενῶ) and aorist (ἔμεινα) Attic prose writers add from the *e*-stem the perf. μεμένηκα (ἐμμεμένηκεν Thuc. i. 5), μενετός, and later writers μενητέον.

23) νέμω, common to all Greek. Here too the *e*-forms do not occur before Attic prose: νενέμηκα, νενέμηται, ἐνεμήθην, νεμητέον (Plato, Xenophon), post-Attic νεμήσομαι. ἐνεμέθην, which Bekker has adopted at Dem. 36, 38, would suit νέμεσις, but has only scanty authority.

24) ὄζω. Cp. above p. 223. ὀζήσω, ὤζησα first in Aristoph. (Vesp. 1059, fr. 538). The fut. ὀζέσω is given in the Canones of Theognostus (Herodian ed. Lentz i. 444) and quoted along with ὤζεσα from Hippocrates.

25) οἴομαι. Homer along with οἴω, ὠΐετο etc. (κ 248) has the aorists ὀΐσατο (ι 213) and ὠΐσθην (π 475). Of merely isolated occurrence and for the first time in Eurip. (Iph. Aul. 986) and Aristoph. (Equ. 860), though more frequent in Attic prose, are οἰήσομαι, ᾠήθην, and later οἰηθήσομαι, οἰητέον. Cp. οἴησις (Plato).

26) οἴχομαι. By the side of the present-form, in use from Homer onward, are found παρῴχωκεν (Aristarch.) at K 252, the uncompounded ᾤχωκα or οἴχωκα, evidently from an *o*-stem, in the tragedians (Aesch. Pers. 13, Soph. Aj. 896), and Hdt., the latter of whom first has the perf. οἴχημαι (διοίχημαι iv. 136), οἰχήσομαι in the Comic poets and Attic prose writers.

27) ὀφείλω. Older Greek knows only of forms of the present, the formation of which has been discussed by Brugman Stud. iv. 120, and of the aorist ὤφελον. To these Thucydides adds ὀφειλήσω, ὠφείλησα, ὀφειληθείς. Cp. ὀφείλημα (Thuc. Plato). ὀφειλευμένης in the Ionic prose writer Eusebius in Stobaeus Floril. 28, 3.

28) πέρδομαι (Nauck Mélanges iv. 50), pf. πέπορδα, aor. ἔπαρδον, but the fut ἀποπαρδήσομαι (Aristoph. Ran. 10) from the *e*-stem.

29) πέτομαι. To the forms in use with poets from Homer onwards of the present (by-form πέταμαι above p. 120) and of the aorist ἐπτόμην, πτέσθαι (by-form πτάσθαι) are added the fut. πετήσομαι (πετήσει Aristoph. Pax 77, 1126). Whether the more common πτήσομαι came from 390
πετήσομαι by syncope, or was formed from the stem πτα, cannot be decided.

30) τεύχω finds a place here in virtue of the form τετευχῆσθαι (by the side of τέτυγμαι) which only occurs at χ 104.

31) τύπτω, in common use from Homer onwards (ἔτυψε N 529, τύψαι Hdt. iii. 29, τετυμμένω N 782). Of the forms from the *e*-stem the first to occur is the fut. τυπτήσω in Aristoph. (Nub. 1444) and Plato (Gorg. 527 a τυπτήσει), while ἐτύπτησα is first found in Aristot. (Pol. ii. 12 ἂν τυπτήσωσι), and much later come τετύπτηκα (Pollux ix. 129), τετύπτημαι (Luc.). [Cp. Sandys, Excursus A on Demosthenes, Part II. pp. 207–211.]

32) χαίρω. Of this verb, common to all Greeks of all periods, the only form which belongs here is the fut. χαιρήσω, which occurs once in Homer (χαιρήσειν Υ 363), then in Hdt., Aristoph. and Attic prose. The aor. ἐχαίρησα not before Plutarch. The *e*-stem χαρε formed straight from the root will be discussed further on. Cp. p. 215 no. 20.

We may finish the list with

33) The stem δα, which is almost entirely confined to poetry, has no present, and is used without expansion in perfect forms like δεδαώς ρ 519 and in the aor. δέδαον (taught)—later ἔδαον, sometimes transitive, sometimes intransitive—which might be placed along with διδάσκω. On the other hand the expanded stem δαε serves to form both the aor. ἐδάη-ν and δαή-σομαι (δαήσεαι γ 187), δεδάη-κα (δεδαηκότες β 61, Hdt. ii. 165), δεδαημένος hymn. in Merc. 483, Theocr.

It is a fact which the historian of the verbal forms should notice, that it is only in 14 of these 33 verbs that the *e*-formation occurs as early

as Homer, while in the remaining 19 it does not appear till late. It is clear from this that the formation took time to spread.

3) Both Formations side by side in the Present.

It is beside my purpose to exhaust the numerous cases in which the present occurs in two forms, both with and without an *ε*. Lobeck (on Buttm. ii. 52 ff., and on Soph. Aj. v. 239) has collected an abundance of material on the subject. I shall content myself here with adducing
391 verbs whose tense-formation is made more intelligible by the discovery of by-forms—often rare or even isolated—from an *e*-stem.

1) *αἴδομαι* and *αἰδέομαι*, both in Homer (*αἴδεο* Φ 74, *αἰδομένων* E 531, *αἴδετο* θ 86)—*αἰδέομαι* Z 442, *αἰδεῖο* Ω 503). Later the *e*-formation is the prevailing one, so that after Homer the other is only to be found in lyric passages in the tragedians and in the Alexandrine poets (*αἰδόμενος* Aesch. Eumen. 549). Fut. *αἰδέσεται* X 124, *αἰδέσσομαι* ξ 388, aor. *ἠδέσατ'* φ 28, *αἴδεσσαι* I 640. The forms with a simple *σ* also occur in Attic writers. To these are added *ἤδεσμαι*, *ἠδέσθην*, the latter as early as Homer (*αἴδεσθεν* II 93). It is natural to assume a stem *αἰδες* (cp. *αἰδυς* nom. *αἰδώς*) for the forms with *ε*. Cp. *αἴδεσις*, *αἰδήμων*.

2) *γέμω* and *γεμέω*. The latter form is given by Herodian ii. 230: *γεμέωσι δὲ παστάδες*.

3) *εἴλω* and *εἰλέω*, if our explanation on p. 179 was the right one, do not properly belong here, but to the twofold forms like *δύνω δυνέω* given on p. 177. *εἰλομένων* occurs at Θ 215, but the prevalent forms are *εἰλεον* and the like, which are joined later by *εἴλημαι*, *εἰλήθην* (Hdt.).

4) The Ionic *εἴρομαι* ask, of the *i*-class (cp. p. 213) A 553, Hdt., by the side of *ἐρέω* (*ἐρέοιμι* λ 229, *ἐρέωμαι* ρ 509), aor. *ἤρετο* (*ἐρώμεθα* θ 133, *ἐρέσθαι* etc.) in general use from Homer onwards, fut. *εἰρήσομαι* (*εἰρησόμεθ' ὅ* 61), and also in Hdt. (*ἐπειρησομένους* I 67). Attic has *ἐρήσομαι*.

5) *εἴρω* say by the side of *εἰρέω* (cp. p. 213).

6) *ἕλκω* and *ἑλκέω*, both in Homer: *ἑλκέμεναι* K 353, *ἕλκεται* P 136—*ἕλκεον* P 395. With *ἑλκέω* go the fut. *ἑλκήσουσ'* X 336, *ἥλκησε* λ 580, *ἑλκηθείσας* X 62. Cp. *ἑλκηθμός*.

7) *ἰάχω* Homer and Euripides, *ἰαχέω* with *ἰαχήσω*, *ἴάχησα* in the tragedians.

8) *κελάδων* only in the partic. in Homer (*κελάδων* Φ 16), in a choric song in Aristoph. (Nub. 284) and in late poets, while *κελαδέω* occurs from Pindar onwards (*κελαδέοντι* Pyth. 2, 15) in poets, with *κελαδήσομαι*, *κελάδησα*, the latter as early as Θ 542 (Nauck Mélanges iv. 50 ff.).

9) *κύρω* and *κῦρέω*. Homer has only the shorter form with the aor.
392 *ἔκυρσα*. From Hesiod onwards (Opp. 755) we find *κυρέω* in poets by the side of *κύρω* with *κυρήσω* and *ἐκύρησα*. Cp. p. 214 no. 6.

10) *κύω* and *κνέω*. The shorter present is the rarer. *κύει* is written at Theogn. 1081, and in an oracle in Hdt. v. 92. As the difference is only discernible in the accent the tradition constantly vacillates. Aeschylus has *ἔκῦσε* (Dan. fr. 41 Dind.), and *ὑποκυσαμένη* occurs at Z 26, λ 254.—*κνέω*, which is equivalent to the Sk. *çvájā-mi* (Princ. i. 195) is the prevailing form from Homer onwards (*ἐκνέι* T 117), with *κνήσω*, *ἐκνήσα* from Hippocrates onwards (e.g. Aristoph. Thesmoph. 641), and afterwards *κεκνήκα*, *ἐκνήθην*. Cp. *κνίσκω* and the nouns *κνῆμα*, *κνῆσις*.

11) λούω, λόω, λουέω, λοέω. All four forms occur in Epic Greek: λούεσθαι Z 508, λοῦ' κ 361, ἐλούεον hymn. in Cerer. 289, λόεον δ 252. To the shorter formation belong the forms λούσω, ἔλουσα, λέλουμαι, λοῦσθαι, all from Homer onwards, to the longer λοέσσαις Ψ 282, λοέσσατο ζ 227. Cp. λουτρό-ν and λοετρό-ν, Lat. *lăvere* and *lavāre*, Nauck Mélanges iv. 53.

12) μαρτύρομαι and μαρτῠρέω. μαρτύρεται Alcman pap. ii. 8, Aesch. Eum. 643, with the aor. ἐμαρτυράμην (Plato), in the active only μαρτυρέω, μαρτυρήσω, ἐμαρτύρησα, μεμαρτύρηκα, with ἐμαρτυρήθην, all from Pindar and Herodotus onwards, and good Attic as well.

13) μάχομαι, the ordinary Greek form from Homer onwards (μαχόμεσθα H 352), also μαχέοιτο A 272, μαχειόμενος (above p. 240), μαχεόνται B 366. The ε-stem underlies the fut. μαχήσομαι, (Σ 265) and μαχέσομαι (Hdt.), the aor. μαχησάμενος (Γ 393) by the side of μαχέσασθαι (Γ 20), the perf. μεμάχημαι (Thuc.), and the verbal adj. μαχητόν (μ 119) by the side of ἀμάχετος (Aesch. Sept. 85).

14) μέδω and μεδέω. Both forms are represented in Homer in the active only by the participle: μέδων α 72, μέδοντες often (e.g. Π 164), but Δωδώνης μεδέων Π 234, Κυλλήνης μεδέοντα, hymn. in Merc. 2 (cp. Κυλλάνας ὁ μέδεις Alcaeus fr. 5 acc. to Apollonius Dyscolus), with similar forms in the tragedians. μέδεις as 2nd sing. Soph. Ant. 1118. Mid. μεδώμεθα E 718, μέδοντο Ω 2, fut. μεδήσομαι i. 650.

15) μινύθω in Homer, Hesiod and the tragedians. In its place Hippocrates has μινυθέω with μινυθήσω, ἐμινύθησα, μεμινύθηκα.

16) μύζω suck (Xenophon). Hippocrates has μυζέω, later (Aelian) μυζάω. ἐκμυζήσας as early as Δ 218.

17) ξύρω, ξῠρέω, ξῠράω. On the late ξύρομαι cp. p. 214 no. 9. ἔξῡρα 393
is found in Hippocrates, ξυρέω, ἐξύρησα, ἐξύρημαι from Sophocles (Aj. 786), Herodotus and Plato. ξυράομαι belongs to post-Attic prose.

18) πεκτέω by the side of πέκτω, cp. p. 168.

19) ῥιπτέω by the side of ῥίπτω, pp. 165 and 245. Lobeck ad Aj. v. 239. Cp. ἐτύπτησα.

20) στερέω (Attic), with a by-form στέρομαι in the middle, from the former come στερήσω, ἐστέρησα (στερέσαι ν 262), στέρησις. Aor. pass. ἐστέρην.

21) τορέω, only hymn. in Merc. 283 ἀντιτορῶντα, by the side of the aor. ἔ-τορο-ν Λ 236. ἀντετόρησεν E 337. Reduplicated presents τετραίνω, τιτράω.

22) τραπέω (cp. τροπέω), the simple verb only in the sense of 'tread grapes' (η 125, Hes. Scut. 301), but ἐπιτραπέω (Τρωσὶν γὰρ ἐπιτραπέουσι φυλάσσειν K 421)=ἐπιτρέπω. τραπέω corresponds exactly to the Lat. *torquo* (cp. *torcu-lar* a wine- or oil-press) and the O. H. G. *drâhjan*, mod. G. *drehen*, twist.

23) φθανέω by the side of the usual φθάνω (p. 179) is said to have been Zenodotus's reading at I 506 (φθανέει).

24) φθινέω by the side of φθίνω is given as a variant in Hippocrates. In this and later prose-writers occur ἐφθίνησα, ἐφθίνηκα. Cp. no. 3 above.

We have treated of θαλπείω by the side of θάλπω and θερείομαι by the side of θέρομαι on p. 241.

4) *E*-Formations in other Tenses than the Present, where the Present-stem is expanded in some other way.

Since many formations which belong here have incidentally been mentioned elsewhere, it will be enough to give here a summary enumeration of the verbs, arranging them according to the way in which the present is made, and taking those in each class in the order in which they have been there given.

A) Lengthening class.

While εἰδήσω came up for consideration under division 3, the exceptional fut. ἰδησῶ Theocr. iii. 37, formed just like the Lat. *vidē-bo* and the Ch.-Sl. *vidě-ti* (see).

πιθήσω (πιθησεις φ 369), πιθήσας Δ 398, Pind. Pyth. 4, 109, Aesch. Choeph. 618, both intransitive, and the transitive πεπιθήσω X 223. Cp. πέπιθον.

394 ἐστίβηται only Soph. Aj. 874.

πεφιδήσεται O 215, Ω 158, in Nonnus πεφιδημένος as well.

ἐρρύηκα, παρερρύηκε Soph. Phil. 653, then in Aristoph. and Attic prose, εἰρρυήσεσθαι Isocr. 8, 140. Cp. ἐρρύην.

κεκαδήσομαι (κεκαδησόμεθ' Θ 353) bears to κηδήσας the same relation as that of ἰδησῶ to εἰδήσω.

B) *T*-class.

κεκαφηώς (κεκαφηότα E 698).

τυπήσει· πλήξει Hesych., who also mentions a pres. τυπεῖ· πλήσσει, as also τυπάζειν· κόπτειν.

C) Nasal class.

Attention has already been called on p. 178 to the fact that many verbs of this class have by-stems in ε.

In the case of κιχάνω there is a long list of by-forms from the stem κιχε, most of which have been given on p. 121, and there are besides the fut. κιχήσομαι from Homer onwards (κιχήσεσθαι Φ 605), the aor. κιχήσατο K 494, and ἀκίχητος P 75.

ἀδήσω Hdt. v. 39, *Fεϝαδη-κότα* Locr. inscr. Stud. ii. p. 445 l. 38, ἄδηκε Hipponax fr. 100 Be.^{3} Cp. ἄδημα· ψήφισμα, δόγμα Hesych., Skt. causat. *svadájā-mi*.

λελάβηκα Hdt. (iv. 79, iii. 42), Eupolis.

μαθήσομαι, μεμάθηκα, μαθητό-ς in general use from Theognis onwards (μαθήσεαι v. 35) in both prose and poetry. The stem μαθε corresponds to the *mede* of the Lat. *medēri* and the corresponding Zd. *maidhaya-*, whence comes *maidhayañha* (teach). On the identity of the stems cp. Princ. i. 387 ff. Cp. μάθησις, μαθητής, μάθημα.

τύχησε ξ 334, τετύχηκε κ 88, Thuc. i. 32. Cp. τετευχῆσθαι above p. 267.

αὐξήσω. Cp. above p. 265 under αὔξω.

οἰδήσω, ᾤδησα, ᾤδηκα (Hippocr. Plato) may just as well be assigned to οἰδέω (Hippocr. Hdt.) as to οἰδάνω. οἰδάω does not occur before Plutarch.

ἁμαρτήσομαι from Homer onwards (*ἁμαρτήσεσθαι* ι 512), *ἡμάρτηκα*, *ἡμάρτημαι*, *ἡμαρτήθην* in Hdt. and Attic writers, *ἡμάρτησα* is not Attic. Cp. *ἁμάρτημα* etc.

βλαστήσω, *ἐβλάστησα*, *ἐβλάστηκα* (Eurip.) by the side of the pres. *βλαστάνω* and *βλαστέω*. Cp. *βλάστημα*, *βλάστησις*.

ἰζήσομαι see above p. 266 under *ἵζω*. 395

ὀφλήσω Attic, *ὤφλησα* rare. Cp. *ὄφλημα*.

αἰσθήσομαι, *ἤσθημαι*, *αἰσθητός*, Attic from Sophocles onward (Philoct. 75). Cp. *αἴσθησις* etc.

καταδεδαρθηκός Plato Conviv. 219.

ἀπεχθήσομαι Eurip. Alc. 71, Hdt. etc.; *ἀπηχθημένος* Thuc. i. 75.

ἐρῑδήσασθαι has been mentioned on p. 185.

ὀσφρήσομαι Aristoph. Pax 152. Cp. *ὄσφρησις*.

D) Inchoative class.

ἡμπλάκηται Aesch. Suppl. 916, *ἀμπλακητός*, *ἀμπλάκημα* (tragedians).

ἐξαπάφησε hymn. in Apoll. Pyth. 198.

ἀρηρεμένος only Apollon. Rhod. iii. 833.

ἐπαυρήσεσθαι Z 353, cp. the isolated *ἐπαυρέω*.

γεγωνήσω. See above p. 262 under *γεγωνέω*.

εὑρήσω, first at hymn. in Merc. 302, and thenceforward in general use along with *ηὕρηκα*, *εὕρημαι*, *εὑρέθην*, *εὑρεθήσομαι*, *εὑρετός*, and in late Greek *εὕρησα*. The variation in the quantity of the ε appears in noun-formation as well: *εὕρημα*, *εὕρεσις*.

λακήσομαι (Aristoph. Pax 381), *ἐλάκησα*, belonging to *λάσκω* (which was omitted by an oversight on p. 197) Aesch. Ag. 865, Aristoph. Ach. 1046, with the Homeric by-form *ληκέω* (*ἐπελήκεον* θ 379), with which we may put *διαλᾱκήσασα* Aristoph. Nub. 410. Cp. *λέλᾱκα* in Attic poets.

E) *I*-class.

βεβολήατο I 3 (beside *βεβλήᾰτο* Ξ 28), *βεβοληµένος* I 9, κ 247 (beside *βεβλημένος* Λ 475 etc.), with *βεβόληται* which first occurs at Apollon. Rhod. iii. 893. The more widely used stem *βλη* I am inclined to regard as, like *τλη*, *σκλη*, *κμη*, *τμη*, *θνη*, and others, the result of metathesis. Cp. Siegismund Stud. v. 199 and above p. 132.

μεμόρηκε, *μεμορημένος* (Nic. Alex. 213, 229), *μεμόρηται* (Apoll. Rh. i. 646), a late by-form to *μείρομαι*, *ἔμμορε*, *μεμορμένος*. The stem *μορε* bears to *μερ* the same relation as that of *βολε* to *βαλ*, *βελ* (*βέλος*).

κεχαρηώς (*κεχαρηότα* Η 312), *κεχάρηκα* (Hdt. iii. 27, Aristoph.), 396
κεχαρημένος (hymn. hom. vii. 10, Eurip. Iph. Aul. 200), *κεχάρηντο* (hymn. in Cer. 458), *κεχαρησέμεν* Ο 98.

F) Reduplicating verbs.

The few verbs of the thematic conjugation, which after the fashion of the verbs in *-μι* characterise their present-stem by reduplication will be given at the end of the book in Chap. XXIV. Two of these must be mentioned here, inasmuch as they have non-reduplicated by-stems in ε:

γενήσομαι, *γεγένημαι*, both from Aeschylus onwards (Eum. 66, Choeph. 379) with the remarkable by-form *γεγεναμένος* Pind. Ol. 6, 53; the form *ἐγενήθην* counts as Doric and not good Attic (Phryn. p. 108), *γενηθήσομα* Plato Parmen. 141, *γενητός* (Plato). Cp. *γένεσι-ς*, *γενέτης*, *γενετή*, Lat. *gene-trix*, *geni-tor*, *gene-trīvu-s*, Skt. *ǵana-kas*, *ǵána-na-s*, *ǵani-tā́* (st. *ǵani-tar*), *ǵáni-trī*. The oldest Sanskrit present-form is *ǵánā-mi* (answering to a possible Gk. **γενᾱ-μι*), and this has a 3rd sing. mid. *aǵana-ta*=*ἐγένε-το*. Apparently the root is *ga* (cp. *γέγα-μεν*), Skt. *ǵa*, and *na* is a syllable peculiar to the present, so that the Dor. *γεγενᾱμένος* is formed as it were from a pres. **γεναω*, which bears to the **γενᾱμι* deduced above the same relation as that of *πιτνάω* to *πίτνημι*.

ἄεσα, aorist to *ἰ-αύω* (*τ* 342, *ἄἐσαμεν γ* 151, *ἄϊσαι ο* 40), contracted *ἄσαμεν π* 367.

G) Verbs in μι.

Here belong forms like the following:

Fut. *ὀλέσσω* (M 250), *ὤλε-σα* (X 107), *ὀλώλεκα* used from Herodotus onwards by the side of *ὄλλυμι*, *ὄλωλα*. Cp. *ὄλεθρο-ς*.

ἑστόρεσα (*γ* 158) by the side of *στόρνυμι* (cp. above p. 112).

Occasionally it is in noun-formation alone that any trace of the expanded stem is to be found. *λάχε-σι-ς* bears exactly the same relation to the rt. *λαχ* that *νέμε-σι-ς* does to the rt. *νεμ*, but while the stem *νεμε* has survived in some verbal forms, this is not the case with *λαχε*. Of an *e*-stem belonging to *ἀλφαίνω* the only trace left is to be found in *ἀλφησ-τή-ς*, *ἀλφεσίβοιαι*. It lies beyond our province to pursue this phase of the *e*-formation any further.

397 If we reckon up all the verbs whose irregularity is due to the presence of this movable *ε* we find the number to be 115. Some of these have, it is true, been counted twice, because, as in the case of *χαίρω*, *χαιρήσω* and *κεχάρηκα*, they show two different *ε*-stems, or because they form two different presents, and others are rare and late. On the whole though there are fully 100 verbs which belong to this class.

APPENDIX TO THE E-CLASS.

It is far less often that we find other movable vowels, but to a limited extent there occur stems in *a* which alternate, just as the *e*-stems do, with shorter stems. These are precisely analogous to the far more numerous Latin verbs of the *a*-conjugation whose *a*, as in *domā-re, dom-ui, domi-tu-m*, does not extend beyond the present. The following are probably the only Greek verbs of the kind.

γοάω, common from Homer onwards, with the isolated aorist *ἔγοον* from the rt. *γο(ϝ)* Z 500.

μηκάομαι, the present only occurs in grammarians: Bekk. Anecd. p. 33, 8. Byform *μηκάζω* Nic. Alex. 214, which the scholiast interprets *μηκᾶται ὡς πρόβατον*. Pf. *μεμηκώς* K 362, *μεμακυῖαι* Δ 435, plpf. *μέμηκον* ι 439, aor. *μᾰκών* Π 469.

μυκάομαι, μυκώμεναι κ 413, with *ἀμφιμέμυκε* κ 227, *μέμυκε* Hes. Opp. 508, aor. *μύκε* Υ 260. In Attic writers there are found only present-forms, which are joined in late poets by *μυκήσω* and *μύκησας*.

As a parallel to the numerous verbs with both *εω* and *ω* in the present we may notice *μυζάω* (suck) by the side of *μύζω*, especially as *μυζέω* occurs in Hippocrates. Veitch, it it true, gives no earlier authority than Aelian H. A. iii. 39 for the *a*-formation. It is impossible to say whether Homer's *μύζησας* (cp. above p. 269) comes from the *e*- or the *a*-stem.

We may further notice here a few verbs which take an *a* in the other tenses when their present is expanded in a different way. We may say that *ἐπέρᾱσα* : *πέρνη-μι* :: *ἐστόρεσα* : *στόρνυμι*, while there is no more a **περάω* or **περάζω* as a present in this meaning than there is a **στορέω*. It is probable that *περάαν* 398
Φ 454 is the fut. to the aor. *πέρασαν* (*o* 428), *ἐπέρασσεν* Φ 40. The perf. pass. partic. *πεπερημένος* Φ 58 bears to it the same relation as that of *βεβίηκε* to *ἐβιασάμην* and other examples mentioned on p. 235 of this alternate adoption of the analogy of verbs in *αω* and of those in *αζω*.

The traces of a movable *o* are rarer still, but not altogether wanting. On p. 267 we met with the Homeric perf. *ᾤχω-κα* to *οἴχομαι*, in which the *ω* holds just the same position as that of the *η* in *οἴχη-μαι* (Hdt.).—There are besides a few Doric forms, the perfects *ἔθ-ω-κα* or *ε-ὐέθω-κα* (Ahrens Dor. 340) from the stem *σϝεθ* (cp. *ἐθίζω*), which occurs in the ordinary *εἴωθα* without the added vowel. *ἔθωκα* is only distinguished from it by the loss of the reduplication.[2] The stems *ἁλω*, *ἀναλω*, and *ἀμβλω*, which appear in *ἐάλων, ἁλώσομαι, ἐάλωκα, ἀναλώσω, ἤμβλωσε* (cp. pp. 133 and 195), bear the same relation to the shorter stems of the presents *ἁλίσκω, ἀμβλίσκω* that the stem *εὑρε* (p. 271) does to

[2] *ἀφέωκα, ἀφέωνται, ἀνέῶσθαι* (tabb. Heracl.) are similar in appearance only, for in them the *ω* is, as Herodian (ii. 236) saw, the representative of the *η* which appears in *ἵ-η-μι*. The same may be said of *πέπτωκα, ἐδήδοκα*.

εὑρίσκω, and the occurrence of the presents *ἀναλόω* and *ἀμβλόω* as well is to be regarded in the same way as that of *γεγωνέω* by the side of *γεγωνίσκω*.

Lastly the *o* in *ὠμόσσαμεν* Y 313, *ὄμοσεν* T 113, which was found in all periods in this aorist, as also in the perfect *ὀμώμοκα*, *ὀμώμοται* and *ὀμώμοσται*, *ὀμωμοσμένος*, the aor. pass. *ὠμόθη* or *ὠμόσθη*, and *ἀνώμοτος*, can hardly be of a different character. For *ὤμοσα* : *ὄμ-νυ-μι* :: *ἐ-στόρε-σα* : *στόρ-νυ-μι* :: *ἐπέρα-σα* : *πέρ-νη-μι*. The short vowel is here due to the same analogy which we discussed above with reference to the *a*. *ὤμοσα* is in a way the aorist to a lost **ὀμόζω* (cp. p. 239 *ἁρμόζω*, *δεσπόζω*).

All these facts go, I think, to prove that the duality of stem, which we have been discussing, is due substantially to the mutual interchange between more primitive and derivative verbs, and this fact justifies us in investigating the phenomena last discussed in an appendix to the *e*-class.

CHAPTER XIII.

THEMATIC AORISTS.

WE have previously had occasion to notice that there are aorist forms not distinguished as such by any definite formative elements. In their origin they are exactly like corresponding formations from the present stem, and they are only distinguished by *not* having any unexpanded indicative present formed from the same stem. We saw for instance (p. 125) that in formation the aorist *ἔ-βη-ν* and the Homeric *βά-την* do not at all differ from *ἔ-φη-ν* and *φά-την*. There is exactly the same relation between thematic forms like *ἔ-τραφο-ν* and *ἔ-γραφο-ν*, *ἔ-τεμε* and *ἔ-νεμε*, *τέκοι* and *πλέκοι*, *γενέ-σθαι* and *πένε-σθαι*. The forms *ἔγραφον*, *ἔνεμε*, *πλέκοι*, *πένεσθαι* are presents or imperfects solely because they are accompanied by the presents indicative *γράφω*, *νέμω*, *πλέκω*, *πένομαι*. The others are aorists, because this is not the case. Vol. II. p. 1

It follows from this fact, which is of the highest importance in relation to the structure of the verb, and which has found the fullest confirmation in Delbrück's Researches on the Verb in the Veda (p. 16), that the distinction between aorist and present or imperfect forms is by no means invariably sharp and unmistakeable. We have the following cases:

1) The present indicative, which by its occurrence makes the corresponding past tense into an imperfect, is wanting in certain dialects and at certain periods of the Greek language, but actually occurs elsewhere. Thus in *ψ* 90

ἔτραφέ τ' ἐνδυκέως καὶ σὸν θεράποντ' ὀνόμηνεν. 2

ἔτραφε is certainly an aorist; for in X 421 we have the unmistakeable imperfect *ἔτρεφε*. But in the Doric dialect the present is *τράφω* (cp. Pind. Isthm. viii. 40 *Ἰωλκοῦ τράφειν πεδίον*), and hence in Theocr. iii. 16

δρυμῷ τέ νιν ἔτραφε μάτηρ

the very form, which in Homer passes for an aorist, is taken as an imperfect. In Herodotus the ind. pres. *τράπω* is common: (e.g. i. 63 *τράπουσι*); hence *ἐτράποντο* (e.g. i. 80) can hardly be anything but an imperfect, while the same form in Attic writers, occurring by the side of *ἐτρέποντο*, is undoubtedly to be considered as an aorist. The same form can therefore at different periods and in different dialects have a different force. And it is not always easy to determine what this is. For instance, does the exclusively Homeric *βλάβεται* justify us in regarding the form *ἔβλαβε* in Quintus Smyrnaeus (v. 309) as an imperfect? The context seems to be rather in favour of the aorist. Can we regard the Homeric *ἤλδανε*, to which we shall return, as an aorist, on the ground that in Aeschylus we find a present *ἀλδαίνω*?

2) We have, as a rule, a serviceable criterion in the different accentuation of the infinitive and the participle. But frequently the tradition is untrustworthy in this respect. Thus the accentuation *ἀγέρεσθαι*, *ἔγρεσθαι* (e.g. *ν* 124) is supported by good authorities. Herodian (i. 452, 26) assumes a present *ἔγρω*; cp. ii. 254, 783. On the other hand *κιών κιεῖν* is the common accentuation, although in Aeschylus (Choeph. 680) we find the unmistakeable present form *κίεις* (cp. p. 146). *ἔχθεσθαι* is generally regarded as a present, *ἀπήχθετο* as an aorist to *ἀπεχθάνομαι*. For the accentuation *αἴσθεσθαι*, e.g. Thuc. v. 26, it may be urged that the present form *αἴσθονται* has strong support in Isocr. 3, 5, and is recognised by Herodian i. 441, 2. Yet no one would deny that *ᾔσθετο* by the side of *ᾐσθάνετο* is an aorist. We must therefore admit that the old grammarians are not consistent, and often follow for the accentuation of forms which were not living to them,
3 purely external analogies, borrowed from the spelling. In fact it almost seems as if the usage of language was itself not free from confusion. A man would be much deceived if he fancied that the meaning was in every case sufficient to decide the question. For the difference between present and aorist-stem is often so slight that in many places both are possible. Under these circumstances we cannot be at all surprised that late writers not seldom constructed present forms after old forms which we have good reason to treat as aorists: e.g. Apollonius Rhodius iii. 895 *ἀγέρονται* after the Homeric aor. *ἀγέροντο*, by the side of the impf. *ἀγείροντο*, Dio Chrysostom *ὄφλω*—recognised also by Herodian i. 448—after the Attic aorist *ὤφλον*, Apollonius Rhodius *κέκλεται* (cp. Herodian u. s.) after the Homeric *ἐκέκλετο*, and others of the kind, which we shall severally point out. It would be an anachronism to argue from such stragglers to the present character of much older forms.

3) Greek aorists sometimes correspond letter for letter to Sanskrit imperfects, e.g.

ἔ-δραμε = Skt. *a-drama-t*
ἔ-φυγε = „ *a-bhuǵa-t*
ἐ-γένο-ντο = „ *a-ǵana-nta*.

The Sanskrit forms are imperfects, because they are connected with the presents *drama-ti* 'he runs,' *bhuǵa-ti* 'he bends,' *ǵana-tē* 'he becomes,' while there is no trace of a Greek **δράμω*, **φύγω*, **γένομαι*.

4) Participles which have become substantives may come just as well from the stems of thematic aorists, or from stems like them, as from present stems: *τέτων*, *δράκων*, *Εὐδράμων*, in which it is not easy to detect any other relation of time than in *μέδων*, *Μελπομένη*, *Παρμένων*, while *Εὐέλθων* can be taken as Benvenuto.

Buttmann first clearly determined the essential characteristics of this aorist formation. From the discussions in the Ausf. Gr. i.[2] 399 ff., which are still well worth reading, we can see how the thoughtlessness of Buttmann's predecessors had gone so far as actually to assume an aorist **ἔφιλον* from derivative verbs like *φιλέω*, and generally to give this formation as one to be expected in every verb. In the face of such
4 absurdities, Buttmann was quite right in laying down the rule that only 'primitiva' or verbs which are to be regarded as equivalent to 'primitiva,' admit of a 2 aor. act. But the addition 'which are to be regarded as equivalent to primitiva' is quite sufficient to show that the line cannot

be very sharply drawn. Verbs like *ἀγγέλλω*, *ἐναίρω*, *ὀφείλω* with their disyllabic stems must certainly be regarded as denominatives; and yet we cannot deny to them aorists of this form. Even the invented **ἔφιλον* is not invented against all analogy, inasmuch as it might be supported by the actually occurring *ἐ-χραισμο-ν*, which certainly goes back to the adjective stem **χραισιμο* for **χρασιμο*. But it is the most important task of the grammarian to determine the prevailing character of a formation, and to distinguish rigorously what is isolated from what properly forms the rule. And so far Buttmann was quite right in his remark, which was protected from misconception by the addition of 'or.' He was also before his time in comparing (p. 404) the twofold character of the Greek aorist with the double formation of the German preterite, comparing e.g. *τρέπω ἔτραπον* with *gebe gab*, and *βλέπω ἔβλεψα* with *lebe lebte*, and in calling attention to the changing nature of the vocalism. No one will certainly reproach him with not having already recognised the German preterite as an original perfect, and the *Ablaut* as distinct from the *Umlaut*. Only, with all his acuteness, he was misled by Hebrew analogies, and went wrong in regarding (at p. 368) the 3 sing. of the aorist, without its augment, and with the elision of the thematic vowel, e.g. *λάβ'*, *βάλ'*, as 'the simplest form of the verb,' and adding the assertion that the Greek language 'started with the aorist:' he went still further astray in assuming for forms without the augment an original preterite force. But it is only by degrees that even comparative philology, with the richer means at her command, has overcome many similar perverse views, and above all has learnt to distinguish between forms that are really primitive, and such as have merely the appearance of primitive forms, owing to phonetic losses.

Thematic aorists, or more strictly speaking shorter preterites provided with a thematic vowel, and distinguished from longer preterites, called imperfects, by the absence of those additions, which we have called present expansions, occur not only in Greek, but also in Sanskrit, Zend, and Slavonic. But the traces of shorter moods, infinitives and participles are extremely scanty except in Greek. As a *system* of connected forms the thematic aorist is properly found in Greek alone, and it is doubtless a result of this fact that it is only in Greek that we can prove a clear distinction of meaning between the shorter forms, and the longer ones which correspond to them. For to mark or to preserve any distinction, language needs a somewhat large number of cases, in which it can be brought into exercise. The instinct of the Greek language in the historic time had a safe criterion between forms of the aorist and forms of the present stem in the accent of the infinitive and participle active and of the infinitive middle, by which *τεκεῖν*, *κραγών*, *γενέσθαι* were sharply separated from *κρέκειν*, *ἄγων*, *πένεσθαι*. But probably this distinction had itself been imprinted at an earlier period only under the influence of the intellectual tendency towards differentiation. We shall come back afterwards to this question.

Under this head we have in Sanskrit that formation of the aorist, which Bopp gives as the 6th, Benfey as the 2nd, Max Müller as the 1st form of the 2 aorist; but also the 7th of the 2 aorist according to Bopp, the 3rd according to Benfey, the 2nd according to Max Müller, that which includes reduplicated forms. But in Sanskrit grammar the reduplicated forms are by no means sharply distinguished from those which

are not reduplicated. Excluding for the present all reduplicating formations, we will content ourselves with quoting here such forms as come from the same stems in Sanskrit and Greek. They are the following:

á-darça-m = *ἔ-δρακο-ν* Impf. *á-drça-m* = *ἔ-δερκο-ν*
a-budha-nta = *ἐ-πύθο-ντο* „ *a-bōdha-nta* = *ἐ-πεύθο-ντο*
a-rika-t = *ἔ-λιπε* (according to Benfey Ausf. Gr. p. 394)
a-vida-t = *ἔ-βιδε* (with pres. *vindā-mi*)
a-çama-t = *ἔ-καμε* (with pres. *çām-nā-mi*, cp. p. 171)

In Zend the only trace of this formation seems to be the 3 sing. *bva-ṭ* (Schleicher Comp. 743, Justi Handbuch p. 400). *bva-ṭ* is related to the
6 3 plur. *bu-n*, just as an aoristic **ἔφνε*, quite conceivable by the side of the original present *φνίω* on the analogy of the Homeric 3 sing. *ἄμ-πνυε*, is to the actually existing *ἔ-φυν* or *φύν*.

The Church-Slavonic aorists of this formation have been discussed by Schleicher Comp. 745 Ksl. 358 ff. With the exception of *nesŭ* (from **naka-m*), I bore, which agrees at any rate in root with *ἤνεγκο-ν*, I do not find any Slavonic aorist, which may be placed by the side of a Greek aorist of like formation. Traces of a Latin aorist of this kind I have attempted to establish in my paper 'de aoristi latini reliquiis' (reprinted in Stud. v. 431). Of the forms which appear to me to fall under this category, there are only two which agree in root with any Greek aorist, i.e. *taga-m* (*attiga-m*) by the side of the present *tanga-m*, with the Homeric reduplicated *τέταγο-ν* and *genitur geni* with *γενέσθαι*. A third, the petrified participle *parentes* corresponds in form to the Greek *πορόντες*. But the meaning has become modified in a special way in both languages, and we cannot place by the side of *πορόντες* any present formation comparable with *parientes*. As the number of Greek aorists of this formation, excluding those which are reduplicated, is much above a hundred (as we shall see immediately), we must admit that the points of connexion with other languages are but scanty: still they are quite sufficient to prove the existence of this manner of formation in the original stock of the Indo-Germanic verb.

We go on now to the special characteristics of the Greek thematic aorist. All the forms, which belong here, naturally divide themselves into two classes: i.e.

I. Aorists without reduplication, and

II. Aorists with reduplication.

The first class is by far the more numerous; the second class is found largely only in the Homeric dialect, and in later times it is extremely limited.

I. Aorists without Reduplication.

The first thing which we have to consider here is the relations of the
7 vowels. In the present formations, which are only characterised by the thematic vowel, it appeared (p. 145) that by far the most common vowel is *ε*, while *α* is especially rare. Here on the other hand *α* is the most usual of all stem-vowels. On p. 150 we saw that presents with a short *ι* and *υ* are rare. Aorists with these vowels are on the contrary tolerably numerous. The one observation evidently gives a welcome confirmation of the other, inasmuch as the distinction of the two formations was evidently intended by language. Differentiation by means of vowels is

one of the favourite phenomena in the structure of the verb. In formations so simple as these the differentiation can only affect the vowel of the stem.

Of 116 aorists of this class 54 have an *a* in the stem-syllable, e.g. *ἀδεῖν*, *ἁμαρτεῖν*, *ἀρέσθαι*, *βαλεῖν*, *δακεῖν*, *δραμεῖν*, *θανεῖν*, *λαβεῖν*, *μαθεῖν*, *χαδεῖν*. It is only by means of this difference of vowel that the verb *τρέπω* gets a simple aorist: *τραπεῖν*. *ε* appears only in 17 instances, e.g. *γενέσθαι*, *ἐλεῖν*, *ἐρέσθαι*, *ὀφελεῖν*, *πεσεῖν*, *τεκεῖν*. We notice a dialectic variation between *α* and *ε* in *ταμεῖν* by the side of the later *τεμεῖν*, in *βαλεῖν*—Arcadian *ἔζελεν* with present *ζέλλω* or *δέλλω* (*ἐξδέλλοντες* Inscription of Tegea l. 51 [Cauer Delectus Inscr. Gr. p. 138], Michaelis [and Curtius] in Fleckeisen's Jahrb. 1861, p. 587)—and in the Locrian *ἀρέσται* (Inscription of Naupactus l. 32) supposing this to be for *ἑλέσθαι*. By the side of the Attic *ἤμαρτον* we have the Homeric *ἤμβροτον* with *o*. Evidently the oldest of the three hard vowels has an 'elective affinity' with this old aorist formation, just as the later *ε* has with the present. We find *o* only in 8 cases: *θορεῖν*, *μολεῖν*, *ὀλέσθαι*, *πορεῖν* etc., *ι* on the other hand in 19, e.g. *ἀλιτεῖν*, *δικεῖν*, *θιγεῖν*, *ἰδεῖν*, *λιπεῖν*, *υ* in 13, e.g. *κρυβεῖν*, *πυθέσθαι*, *τυχεῖν*, *φυγεῖν*. Five aorists with diphthongal stems are quite isolated instances, i.e. *αἴσθεσθαι*, *ἐπαυρεῖν*, *εὑρεῖν*, *δουπεῖν*, *χραισμεῖν*.

In 9 forms the vocalism is irregular. In three of them there can hardly be a doubt that syncope has taken place, i.e. the participle *ἀγρόμενοι* (e.g. Υ 166) by the side of *ἀγέροντο* (e.g. Σ 245) and *ἀγερέσθαι* (*β* 385), and *ἔγρετο*, with the imper. *ἔγρεο*, the infin. *ἐγρέσθαι* and the part. *ἐγρόμενος* (*κ* 50); and also *ὤφλον*, which differs indeed in usage from *ὤφελον*, but which is certainly identical with it in origin. The same phonetic process may be noticed in the Skt. *a-kṣha-n*, which occurs 8 by the side of *a-ghasa-n* as a 3 plur. from rt. *ghas* eat, devour. *ἔ-γεν-το*, which has been wrongly put here, found its proper place on p. 130 by the side of the active *ἔγαν*.

Metathesis meets us very plainly in *ἔ-δρακο-ν* by the side of *δέρκομαι* (as 1 sing. *κ* 197, *ἀνέδρακεν* Ξ 436), *δρακεῖν* Aesch. Ag. 602, *δρακών* Eurip. Herc. F. 951, with the Skt. *a-darça-m* and in the quite analogous *ἔ-πραθο-ν* beside *πέρθ-ω* (3 pl. *ἔπραθον* Σ 454, *διαπραθέειν* Η 32). *ἔδρακον* has only become an aorist by means of this metathesis and the retention of the *α* as compared with the *ε* of the present stem, while in Sanskrit the fuller *ádarça-m* is regarded as an aorist in contrast with the weakened *ádṛça-m*. We find metathesis appearing as a phonetic affection of no importance for the tense-system in *ἔ-δαρθο-ν* (post-Homeric) by the side of *ἔ-δραθο-ν*, *δραθέειν* (*υ* 143, Ξ 163).

In the case of 4 forms it may be doubted at first sight whether they are to be explained by syncope or metathesis, i.e. *ἔ-σχο-ν*, *ἔνι-σπο-ν*, *ἔ-σπο-ν* and *ἐ-πτό-μην*. We might be inclined from a fundamental form *ἐ-σεχο-ν* (=Skt. *a-saha-m*) to derive on the one hand by the loss of the *σ* *ἔ-εχον εἶχον*, that is, the imperfect; and on the other by the rejection of the *ε* *ἔ-σχο-ν*, the aorist, so that the distinction of meaning here, as in the cases of metathesis, would only have been brought about by what may be called casual phonetic affections. But this is opposed by the imper. *σχέ-ς*, which shows by its formation, corresponding as this does to that of the conjugation in *-μι*, that the *ε* was regarded as a stem-vowel, and that hence *σχε* was regarded as the root. In this sense we discussed the form on p. 132 and shortly before the completely analogous *ἐνί-σπε-ς*. We

decide therefore for metathesis, which is also confirmed by ἔ-σχε-θο-ν, σχή-σω, ἔ-σχη-κα, σχε-τό-ς, σχέ-σι-ς, σχῆ-μα, and ἀ-σπε-το-ς, θε-σπέ-σιω-ς. Hence ἔσχον and ἔνισπον are properly primitive aorists, in which we should naturally have expected as 1 sing. ind. *ἔ-σχη-ν, *ἔ-σπη-ν. But the final vowel was in most verbal forms affected by the interchange between *o* and *ε*, so that finally even in the imperative ἐνίσπε, παράσχε and other forms of the kind found a place. The optative σχοίμην is to be looked upon just as θοίμην, only that in the case of the latter the earlier form θείμην was also preserved. We meet with a similar change of
9 the radical into the thematic vowel in Sanskrit aorists, only that here, with the firm nature of the *a*, the change appears not as qualitative, but purely as quantitative, e.g. in *a-khja-m* 'I told' from the root *khjā*. After these two certain instances it is very probable that we have to come to the same conclusion with regard to ἔ-σπο-ν (ἐπ-έσπον 3 plur. Γ 294), ἐπί-σπῃς, ἐπί-σποι, ἐπι-σπεῖν, μετα-σπών. We shall have occasion to return to the middle forms σπέσθαι etc. when dealing with the reduplicated aorists. It is more difficult to form a judgment as to the aorist ἐ-πτό-μην, πτέ-σθαι. Here we find *α* by the side of the thematic vowel: ἔ-πτα-το, ἀπο-πτά-μενος as well as ἀπ-έ-πτη-ν, the relation of which to πέταμαι was discussed on p. 120. It is true that ἐπι-πτέ-σθαι and the like occur even in Homer (e.g. Δ 126), but we have some reasons for regarding the forms with *α* as the older. Now as we find side by side in the present-stem πετα and πετο (πέτομαι) and in the aorist πτα and πτο, the balance inclines in favour of syncope. With these forms I compared (l. c.) πελο (πέλομαι) and πλο (ἔ-πλε-το). This is not however to be understood as implying that ἔ-πλε-το (also in the active ἔπλε M 11) is an aorist. The aoristic force does not suit various forms, e.g. ἐπιπλό-μενον ἔτος η 261: ἔπλετο is therefore just as much an imperfect as ἐπέλετο. The phonetic difference was not in this case used to distinguish an aorist.

As to the origin of the stems appearing in these aorists, the majority correspond to the expectation that we should find in them nothing but an unexpanded root together with the thematic vowel: e.g. ἀδεῖν, ἀλέσθαι, βαλεῖν, δακεῖν, θανεῖν, ἰδεῖν, ἱκέσθαι, ὀλέσθαι, ἄμ-πνυε, πορεῖν, πυθέσθαι, τεκεῖν. But it is unmistakeably otherwise with a not insignificant number of by no means late and in part very common forms: e.g. βλαστεῖν, αἰσθέσθαι, ἀμπλακεῖν, εὑρεῖν. These have evidently arisen from stems of various, and, in part, certainly nominal origin. We might call them secondary aorists, and may divide them into the following five groups:

1) Aorists with an accessory *θ*. These fall into two subdivisions, according as the *θ* is attached to the whole verbal stem, or only occurs sporadically:

10 *a*) Aorists with a *θ* attached throughout: αἰσθέσθαι, δαρθεῖν, μαθεῖν, παθεῖν, ὀλισθεῖν.

b) Aorists with a sporadic *θ*: ἤλυ-θο-ν and ἦλθο-ν, ἔ-σχε-θο-ν (by the side of ἔ-σχο-ν).

We must return in a later section to a general consideration of the forms with *θ*. It is sufficient to refer here to what we have put together in the Principles, vol. i. p. 81 f. If the *θ* appearing in such forms comes, as is generally thought probable, from the rt. *θε*, Skt. *dhā* 'to place, do,' we must recognise in such aorists compound forms, to be compared with the

German weak perfects. The case of the thematic vowel is then here just as it was with ἔ-σχο-ν: it must have come from the stem-vowel of the verb.

2) Aorists with an accessory τ.

There are scarcely more than the following five, which belong here: ἥλιτο-ν (gen. mid.), which, as has been shown in Principles, vol. ii. p. 179, is connected with the rt. ἀλ (ἄλη, ἁλᾶσθαι) and especially with ἠλί-θιο-ς, ἥμαρτο-ν, which has been already mentioned on p. 163 under the present formations with τ. The Epic forms ἤμβροτον, ἀβροτάζειν show that the rough breathing is of later origin. Certainly ἤμβροτο-ν or ἥμαρτο-ν is nothing but a verbal form directly derived from the adjective *ἀ-μαρ-το 'not sharing' (cp. μέρος, μοῖρα, μόρο-ς), as has been already shown in Principles, vol. ii. p. 350. Further confirmation may now be supplied. Hesychius has the gloss ἀμαρεῖν with the explanations ἀκολουθεῖν, πείθεσθαι, ἁμαρτάνειν. The first two meanings evidently suit only a ἀμαρεῖν equivalent in meaning to ὁ-μαρτεῖν, the third justifies us in assuming a shorter ἀμαρέω formed from ἀ-μαρο, and related to *ἄ-μαρτεῖν as ἀπραγεῖν is to ἀπρακτεῖν. In the same storehouse of facts we find the gloss ἐπίμορτος · σπόριμος γῆ, in the explanation of which the word μορτή is quoted and explained by μέρος. ἐπίμορτος is evidently the opposite of the ἀ-μορτο-ς which is at the bottom of ἀμβροτεῖν. Other traces of this negative adjective are pointed out by Lobeck El. i. 37.—It is just the same with ἔ-βλαστο-ν. Here the noun βλαστό-ς actually occurs: its derivation from the rt. *vardh* Gr. ϝαλθ and by metathesis ϝλαθ, βλαθ is discussed in Principles, vol. ii. p. 168. These formations evidently became aorists only by the existence of ἁμαρτάνω, βλαστάνω, which are 11
expanded by present-strengthening.—We have further ἔ-μορτε-ν, known to us only from Hesychius. Lobeck l. c. regards it as a mistake for ἤμορτεν, so that it would be equivalent to ἤμαρτεν. But I doubt whether the explanation of Hesychius ἀπέθανεν suits this view. It is true that the gloss ἰσήμορτεν · ἀπέθανεν remains obscure. I conjecture that the syllable ἰσ- is here as in ἴσ-φωρ-ες=φῶρες a dialectic form of ἐξ, but the η is strange: probably it is a mistake for ε. ἔ-μορτε-ν, if correctly recorded, is to μορ-τό-ς, explained in Hesychius by θνητός, just as ἔβλαστεν is to βλαστός.—From a much later time we have the last of these forms ὄμαρτον, i.e. in Orph. Argon. 511:

καί ῥα πανημερίῃσιν ἐν εἰλαπίνῃσιν ὄμαρτεν.

We may conjecture that we may see in this word only an imitation of ἄμαρτον. There is one more doubtful form in Hesychius, to which my attention has been called by Brugman, Sprachwissenschaftliche Abhandlungen p. 160. The gloss ἄδρακτον · ἴδιον is written by Mor. Schmidt ἄδρακτον · εἶδον, a very happy thought. The frequentative δροκτάζεις · περιβλέπεις suits this very well. ἀ as an augment was discussed on p. 77.

We may find in the kindred languages an analogy even for these isolated forms. In Sanskrit from the rt. *as* 'throw' there is formed the very remarkable aorist *ās-tha-m*. None of the attempts to explain this hitherto, so far as they are known to me, seems at all satisfactory. Perhaps the form belongs to the present group. The aspiration of the *t* after *s* is not without analogies. *āś-ta-m* would be formed in exactly the same way as ἔ-βλασ-το-ν. Besides this, Old Erse has a widely-extended preterite in *t*, e.g. 3 sing. *bir-t* tulit (Zeuss-Ebel p. 454), trans-

lated into Greek letters *ε-φερ-τε=ἔ-φερ-ε. Perhaps the remarkable Oscan preterites (3 sing.) in *-ted*, which have long been compared with the Keltic forms, e.g. *prúfatted*=probavit, belong to this group: Schleicher Comp.[3] 823 treats them as perfects. As these languages have lost the augment, the distinctive criterion of the preterite, the question is hard to decide.

12 3) Aorists with accessory nasals.

Here we may first mention ἤλδανε (σ 70, ω 368), with the present ἀλδαίνω, in face of which the form is regarded as an aorist. But as ἀλδαίνω occurs first in Aeschylus, while ἤλδανε is only Homeric, and as the sense in the two passages hardly decidedly requires the aorist, the possibility that ἤλδανε is the imperfect to a subsequently obsolete *ἀλδάνω is by no means excluded. On ἔ-πιτνο-ν and πιτνέω I have stated my views on p. 184. The occurrence of the longer form πιτνέω by the side of πίτνω was sufficient to mark ἔπιτνον as an aorist. But it is worth noticing that the use of this verb is limited to the poets.

But perhaps there are still some other forms to be placed here. If in the case of γίγνο-μαι we start, not from the fundamental form γεν which appears in γενέσθαι, γέγονα, γένος, αἰειγενέτη-ς, but from the root γα which occurs in γε-γα-ώς, γε-γά-ασι, then in the stem γε-νο, just as in the Skt. present ǵa-nā-mi, the second syllable must be regarded as an expansion (p. 272). This is the explanation of the fact that, as we saw on p. 276, *a-ǵana-nta* is regarded as an imperfect, ἐ-γένο-ντο as an aorist. Of the same nature is ἔ-χανο-ν, undoubtedly an aorist, by the side of χάσκω. But if Gustav Meyer (Die mit Nasalen gebildeten Präsensstämme, p. 50) is right in starting with the root χα for both presents, χα-νο is an extended form just as much as χα-σκο (cp. above p. 197, Principles, i. p. 241). It is much the same with κανεῖν and κτανεῖν. Here too we are brought to a root in α, with which however the nasal coming from the extending syllable *-na* soon became incorporated. Cp. pp. 130, 216, Gustav Meyer op. cit. p. 33. We ought not perhaps to attach much importance to the gloss of Hesych. κτάνειν· κτείνειν, for this may well be an error for κτανεῖν.

4) Other aorists of secondary formation.

There are still a number of isolated forms remaining. A suffix *-κο* is clearly shown in ἔ-πτα-κο-ν (καταπτακών Aesch. Eum. 532), by the side of the Homeric κατα-πτή-την. The expanded stem also underlies the present πτήσσω. With these formations we may connect ἔ-θηκα,
13 ἔ-ηκα, ἔ-δωκα with their α which reminds us of the sigmatic aorist: to these we shall return below.—The γ in ἔ-τμαγο-ν may probably be regarded as a weakened κ (cp. Principles, i. 273). ἤμπλακον too does not look very primitive, but the etymology presents difficulties. The relation of the Homeric ἔ-χραισμε etc. with the much later χραισμέω was discussed on p. 259. χραισμο is an adjective stem from χρα-σιμο (later χρή-σιμο-ς) formed like φύξιμο-ς, hence the verbal form ἔ-χραισμε is just as closely related to the noun-stem χραισμο as the Homeric θέρμε-το to the stem of θερμό-ς. In the case of ἔχραισμε the absence of a similarly formed indicative present gives occasion for its aoristic force. —A suffix *-ρο* is possibly to be found in the aorist ἤναρο-ν, though this does not occur before Pindar: the origin of the word is obscure. But the derivation from ἔναρα 'arms' is rightly rejected: Pindar's phrase (Nem. x. 15) ἐν ὅπλοις ἔναρε goes especially against it. Perhaps the word

comes from the rt. *san* (Skt. pres. *sanōmi*) 'to win,' 'to acquire,' which on p. 122 we thought we discovered in *ἀνύω*, and to which probably *-ἔν-τη-ς* in *αὐτο-έντη-ς*, *αὐθέντη-ς* belongs. From the rt. *san* comes the Skt. *san-ara* gain, booty, from which we easily arrive on the one hand at *τὰ ἔναρα* (spolia), on the other at *ἐναίρω* i.e. *ἐναρ-jω*, 'to make booty of,' 'to acquire.' An *l*-suffix possibly occurs in *ὤφ-ελο-ν* and *ὦφλο-ν*, but I do not know any satisfactory etymology.

The aorists *ἔ-δυπο-ν* (first in the Anthology), *ἐπ-αυρ-εῖν*, and *εὑρ-εῖν* show by their diphthongs that they can hardly be radical, but their etymology is unexplained.

As *ἴσχω* is probably rightly regarded as a reduplicated present, we have in *ἠμπισχό-μην* (Aristoph.) an aorist with present reduplication, which only derives this force from contrast with *ἀμπισχ-νέο-μαι*.

Finally the aorist *ὠσφρό-μην*, found first in Aristoph. and for which Herodotus has *ὠσφράμην*, has come from a compound stem. For as we cannot fail to see here the rt. *ὀδ* (*ὄζω*), the second element of the word must contain a second root. *ὀσ-φρο* for *ὀδ-φρο* appears to be a compound of the nature of *καρπο-φόρο-ς*, *φως-φόρο-ς*, but to be compared because of the rejection of the vowel with *δί-φρο-ς*. We have actually authority in later time for the substantive *ὄσφρα*=*ὀδμή*. *ὀσ-φρο* has its counterpart in *ol-facio* : *ὀσφραίνομαι* is a later expansion. 14

So various are the forms which may be united under one common category.

I now give a list of the thematic aorists, which are not reduplicated, arranged according to the initial letter of the stems : and hence I generally quote the infinitive, in which the initial comes clearly into prominence. The only exception is in the case of isolated forms, not existing in the infinitive.

1) *ἀγγελεῖν*. Certainly established in Anthol. vii. 614, 9 *δάμῳ δ' ἀγγελέτην*, elsewhere usually with various readings : e.g. Herod. iv. 153 *ἀπήγγελον* (v. l. λλ), Lycurg. § 85. Mid. still less authenticated.

2) *ἀγερέσθαι* β 385, also accented *ἀγέρεσθαι* (Lobeck Rhemat. 132), *ἀγέροντο* B 94, part. *ἀγρόμενος* cp. p. 279.

3) *ἀδεῖν*. Established from Homer, Pindar, Herodotus, and Sophocles (Antig. 89). For *ἔαδον*, *εὔαδον* p. 79. Mid. isolated and late.

4) *αἰσθέσθαι* common from Aeschylus (Prom. V. 957) onwards.

5) *ἤλδανε* discussed on p. 282.

6) *ἀλέσθαι*. *ἄληται·Φ* 536, *ἀλομένα* Aesch. Eum. 368 ch., *εἰςαλοίμην* Soph. Fr. 695 Dind. *ἐνήλλου* M.SS. Aesch. Pers. 516, altered by some editors into *ἐνήλλου*, because this aorist is not regarded as good Attic : 'forma barbara' Cobet. N. L. 454. For *ἄλτο* see p. 90.

7) *ἀλιτεῖν*. *ἤλιτεν* p. 262, *ἀλιτών* Aesch. Eum. 316. *Ἀθηναίην ἀλίτοντο ε* 108, *ἀλιτέσθαι δ* 378.

8) *ἤλφον* Φ 79, *ἄλφοι ο* 453; these Homeric forms are regarded as aoristic only because the present *ἀλφάνω* occurs (according to Veitch) three times in Eur. and Aristoph.

9) *ἁμαρτεῖν* from Homer onwards : *ἄμαρτ'* Δ 491 (with impf. *ἡμάρτανε* K 372), *ἁμαρτών* Ψ 857. Also *ἤμβροτον φ* 425 etc.

10) *ἀμπλακεῖν* poetic aorist with the bye-form *ἤμβλακο-ν*, established from Archil. Fr. 73 B^3. Cp. p. 195.

11) *ἀρεῖν*, only *ἄροι* from quite late prose; but very commonly *ἀρέσθαι* in poets from Homer onwards: *τὴν ἄρετ' ἐκ Τενέδοιο* Λ 625, *μισθὸν ἄρηται* M 435, *κλέος ἐσθλὸν ἀροίμην* Σ 121, *κῦδος ἀρέσθαι* Π 88, *ποδοῖν κλοπὰν ἀρέσθαι* Soph. Aj. 248, never with any other meaning than that of acquiring, gaining, and hence belonging to the present *ἄρνυμαι* (p. 110). As *αἴρω* is contracted from *ἀείρω* (poet.: to this belong *ἄερθεν*, *ἠερέθονται*) the aorist forms with a short *a* cannot possibly have anything in common with *ἀείρω* or *αἴρω*. Cp. Principles, i. 425, 442. Buttmann, ii². 100 was led astray by the parallelism of *ἀείρω αἴρω* with *φαείνω φαίνω*. But while *ἀείρω* (p. 215) is the form invariably used in Homer, it is the opposite with *φαίνω*. *φαείνω* occurs only in a very limited application, so that the shorter form has certainly not come from the longer, derived from *φάος*.

12) *ἀρέσθαι* 'take,' in the Locrian inscription from Naupactus [Cauer p. 111, B. 18] l. 32 *τὰν δίκαν πρόδικον ἀρέσται ποτοὺς δικαστῆρας, ἀρέσται καὶ δόμεν*, (cp. Stud. ii. 448), either from the rt. *ἀρ*, which underlies the present *αἴρέω*, or with a change of breathing (cp. *ἄγεν*=*ἄγειν*) for *ἀρέσθαι*, and hence akin to the preceding word. The former is the more probable because of the common formula *δίκην λαβεῖν*.

13) *ἐπαυρεῖν*, almost exclusively poetical: *μή τις χρόα χαλκῷ ἐπαύρῃ* N 649, *ἐπαυρέμεν* Σ 302, middle *ἐπαυρέσθαι* A 410 (*ἐπαύρωνται*), *ἐπαύροιτο* Herod. vii. 180.

14) *βαλεῖν*, *βαλέσθαι* common in all Greek from Homer (Π 618, B 45 etc.) downwards. Arcad. *ἔζελεν ἔβαλεν* Hesych.

15) *ἔ-βλαβε-ν* only in Quint. Smyrn. v. 509, *τίη νύ τοι ἔβλαβεν ἦτορ*; cp. p. 275.

16) *βλαστεῖν* in Pindar (Ol. vii. 69), Herod. (vii. 156), and the dramatic poets (Soph. El. 238).

17) *βραχεῖν* poetical from Homer (E. 863) downwards.

18) *βρυχεῖν* 'bite,' only in Anth. ix. 252 (*ἔβρυχε*).

19) *γενέσθαι* common in all writers from Homer downwards.

20) *γόον* 3 pl. probably only in Z 500 *αἳ μὲν ἔτι ζωὸν γόον Ἕκτορα*.

21) *ἔ-δαε-ν* only in Apollon. Rhod. iv. 989 etc. with the meaning 'taught' (hence=*δέδαε-ν*).

22) *δάηται* only in Υ 316, Φ 375 *ὁπόσ' ἂν Τροίη μαλερῷ πυρὶ πᾶσα δάηται*. Rt. *δαυ*, *δαϝ*, hence for **δάϝηται*.

23) *δακεῖν*, common especially in the poets from Homer (E 493) downwards.

24) *δαρθεῖν*, common in poetry and prose in composition with *κατά*, *κατέδραθον* ψ 18, *καδδραθέτην* ο 494, *κατέδαρθον* Thuc. vi. 61.

25) *δικεῖν* an isolated post-Homeric poetic aorist: Pind. Ol. x. 72, *ἔδικε πέτρῳ*, Aesch. Choeph. 99 *δικοῦσα*.

26) *ἔ-δυπε*, *κατ-έ-δυπε* only in Anth. vii. 637.

27) *δρακεῖν* in poetry from Homer onwards (*ἔδρακον* κ 197), *ἐ-δρακό-μην* Anth. vii. 224.

28) *δραμεῖν* common from Homer (Σ 30) downwards.

29) *δραπών* only in Pind. Pyth. iv. 130.

30) *ἐγρέσθαι*. *ἔγρετο δ' ἐξ ὕπνου* B 41, *κὰν ἔγρῃ μεσημβρινός* Ar. Vesp. 774, *ἔγρεο* K 159, *ἐγρέσθαι* ν 124, *ἐξεγρέσθαι*, *ἐξεγρόμενος* Plat. Symp. p. 223 C.

31) *ἑλεῖν*, *ἑλέσθαι* common from Homer downwards.

32) *ἤλυθο-ν*, *ἐλθεῖν*. The trisyllabic form is limited to the indicative,

and occurs only in Homer, Pindar, and, especially in melic passages, in the tragedians: K 28, Soph. Aj. 234: the disyllabic from Homer downwards (*ἦλθον* Δ 82) as the usual form in the indicative, and the exclusive form in the conjunctive, optative etc.: *ἔλθοι* E 301 occurs at all dates and in all dialects. Hence Dor. *ἦνθον* (Epicharmus, Theocritus), Lacon. *ἦλσον*, *ἐλσών* (Aristoph. Lys. 105).

33) *ἐναρεῖν*, *ἐξεναρεῖν* Hes. Sc. 329, *ἔναρον* from Pindar (Nem. x. 15) downwards. Cp. p. 282.

34) *ἐρέσθαι* from Homer onwards commonly used in all moods, the infin. and the participle.

35) *ἐρικεῖν*, *ἤρικε δ' ἱπποδάσεια κόρυς περὶ δουρὸς ἀκωκῇ* P 295, Soph. Fr. 164 Dind.

36) *ἐριπεῖν*, *ἤριπε δ' ἐξ ὀχέων* E 47, *ἐριπών* Θ 329, isolated in other poets and in Hippocrates. *ἠριπόμαν* Agathias Anth. P. ix. 152.

37) *ἐρυγεῖν* in Homer, perhaps also in Callimachus Fr. 246 (ed. O. Schneider ii. p. 485) with the meaning 'roar' (*ἤρυγε* Υ 403), later (also in Aristot.) 'vomere' Ar. Vesp. 913 *ἐρήρυγεν*, cp. p. 155.

38) *εὑρεῖν*, *εὑρέσθαι* from Homer downwards in ordinary Greek.

39) *ἀπ-εχθέ-σθαι*, from Homer onwards; in Φ 83 I. Bekker writes *ἀπέχθεσθαι*, but cp. Eur. Med. 290 Elmsley, Dind.

κρεῖσσον δέ μοι νῦν πρός σ' ἀπεχθέσθαι, γύναι, 17
ἢ μαλθακισθέντ' ὕστερον μέγα στένειν

where the aorist force is much the more suitable.

40) *θάλε*, a very doubtful reading in Hymn. Homer. xix. 33, for which Ruhnken conjectures *λάθε*: *ἀθαλεῖν* often occurs in the New Test. and LXX.

41) *θανεῖν* from Homer onwards very common, especially in composition with *ἀπό* and *κατά*.

42) *θενεῖν*, established from Pindar (Ol. 7, 28 *θενών*), Eurip. (Heracl. 271) and Aristoph. (Lys. 821).

43) *θιγεῖν* occurs in Pindar (*θίγον* Isthm. i. 18), in the tragedians, Hippocrates, Xenophon, and in later poetry and prose (Aristot.). *σιγῆν* is Laconian—Aristoph. Lys. 1004. *θιγέσθαι* Themistius.

44) *θορεῖν* from Homer onwards (*θόρε* Ψ 509) especially in the poets: *ὑπερθορεῖν* Herod. vi. 134.

45) *ἰδεῖν*, *ἰδέσθαι* in all Greek.

46) *ἱκέσθαι* common from Homer onwards, in prose for the most part only in composition with *ἀπό*, *ἐπί*.

47) *ἀμπ-ισχεῖν*, *ἀμπ-ισχέσθαι*, both established from Aristoph. (Eccl. 540), the former from Eurip. (Ion 1159 *ἤμπισχεν*) and Plato Protag. 320. Cp. p. 283.

48) *καμεῖν* from Homer onwards, in poetry and prose, *καμέσθαι* Σ 341, *ἐκάμοντο* ι 130.

49) *κανεῖν* in the tragedians (Aesch. Sept. 630) and Theocritus.

50) *κιεῖν* cp. p. 276.

51) *κιχεῖν* cp. p. 121 in poetry from Homer onwards: *γ* 169 *ἐν Λέσβῳ δ' ἔκιχεν*.

52) *ἔ-κλαγο-ν* a rare poetical aorist of *κλάζω* Hymn. Hom. xix. 14, *ἀνέκλαγον* Eur. Iph. A. 1062.

53) *κραγεῖν* from Homer onwards (*ξ* 467) frequently in poetry and prose.

54) *κρίκε* only in Π 470 *κρίκε δὲ ζυγόν*.

55) *κρυβεῖν* first in Apollodorus, in New Test., and in Plutarch.

56) *κτανεῖν* poetical from Homer onwards (B 701) and in late prose.

57) *ἔ-κτυπε* poetical, *μεγάλα κτύπε* Θ 75, *ἔκτυπεν αἰθήρ* Soph. O. C. 1456.

58) *κύθε* perhaps only in *γ* 16 *ὅπου κύθε γαῖα.*

59) *λαβεῖν, λαβέσθαι* in all Greek.

18 60) *λαθεῖν, λαθέσθαι* in all Greek.

61) *λακεῖν* poetical (*λάκε* Ξ 25, *λακεῖν* Soph. Ant. 1094).

62) *λαχεῖν* in all Greek.

63) *λιπεῖν, λιπέσθαι* universally used.

64) *λιτέσθαι* Π 47, *λιτοίμην* *ξ* 406.

65) *μαθεῖν* common from Homer onwards (*μάθον* Z 444).

66) *μακών*, Π 469, *κ* 163, *σ* 98, *τ* 454.

67) *μαπέειν* Hes. Scut. 231, 304.

68) *μολεῖν* poetical from Homer onwards (*μόλῃ* Ω 781, *μολοῦσα* Z 286), also in Xenophon and in late prose.

69) *ἔμμορο-ν* first in Alexandrine poets: Apollon. Rhod. iii. 4 *ἔμμορες*, iv. 62, probably from a misunderstanding of the Homeric *ἔμμορε* Λ 278, which will have to be discussed under the head of the perfect [below p. 131 marg.].

70) *μύκο-ν* only in E 749 *πύλαι μύκον* and *γ* 260 *σάκος μύκε.*

71) *ὀλέσθαι* frequent from Homer onwards, especially in composition with *ἀπό.*

71 *b*) *ὀλισθεῖν· ὄλισθε* Υ 470, Φ 774, *ὤλισθε* Attic poets and later writers.

72) *ὄμαρτε-ν* a late-formed aorist from *ὁμαρτέω* only in Orph. Arg. 511, cp. p. 281.

73) *ὤρε-το* M 279, X 102, *ὄροιτο* *ξ* 522, *ὁππότ' ἔρις—ὄρηται* Hes. Theog. 782, *ὀρόμενο-ς* in the tragedians (Aesch. Sept. 115). Cp. *ὦρτο* p. 131. On the other hand *ὄροντο* *γ* 471 is the impf. from rt. *ϝορ* 'see, watch.' Cp. p. 144.

74) *ὀσφρέ-σθαι* established from the comedians (Ar. Ach. 179) and late prose.

75) *ὤφελο-ν* from Homer (*ὡς ὤφελες αὐτόθ' ὀλέσθαι* Γ 428) onwards commonly used in all Greek for wishes, resembling the usage of *ὀφείλω.* —*ὤφλο-ν* differing from this only by the syncope, in a special meaning, 'I was indebted,' hence more agreeing in use with *ὀφλισκάνω*, in Herodotus (*δειλίην ὤφλε* viii. 26) and Attic writers. The present *ὄφλω* quoted from Dio Chrysostom and Appian seems to be a later formation.

76) *παθεῖν* in all Greek.

77) *παρδεῖν* abundantly established from the comedians, in composition with *ἀπό, κατά* etc. (Aristoph. Pax. 547).

78) *πετεῖν* Aeolo-Doric, established from Alcaeus (*ἔπετον* Fr. 60 B[3]) and Pindar (*ἔμπετες* Pyth. viii. 81). The other form commonly in use from Homer (*πέσεν* Ξ 460) downwards will have to be discussed in Chapter XVII. [p. 284 marg.].

19 79) *πιεῖν* in all Greek. Cp. *πῖ-θι* etc. p. 129.

80) *πιθεῖν* from Pindar onwards (*πιθών* Pyth. iii. 28) here and there in poets. *πιθέσθαι* in poetry from Homer onwards (*ἐπίθοντο* Γ 260, cp. C. I. A. ii. 38, 4).

81) *πιτνεῖν* in Pindar and the tragedians; cp. pp. 184 and 282.

82) *ἄμ-πνυε. ἀλλὰ σὺ μὲν νῦν στῆθι καὶ ἄμπνυε* X 222, 3 sing. in Quint. Smyrn. Cp. *ἄμπνῦτο* p. 129.

83) *πορεῖν* in poets from Homer onwards (imper. *πόρε* I 513, *πορών* Π 178).

84) *πραθεῖν* in Homer (*διαπραθέειν τόδε ἄστυ* H 32) and Pindar (*ἔπραθε* Pyth. ix. 81).

85) *κατα-πτακών* only in Aesch. Eum. 252.

86) *πταρεῖν* common from Homer onwards (*ρ* 541 *Τηλέμαχος δὲ μέγ' ἔπταρεν*): from Hippocrates a conjunctive middle *πτάρηται* is also quoted.

87) *πτέ-σθαι* cp. above p. 280, Veitch p. 468.

88) *πυθέ-σθαι* in all Greek.

89) *συν-έρραφε-ν* only in Nonnus Dion. vii. 152 *μηρῷ δὲ συνέρραφεν.*

90) *ἔρριφε-ν* only in Oppian Cyneget. iv. 350.

91) *σπαρέ-σθαι* a doubtful reading in Polyaen. viii. 26. Others *σπείρεσθαι.* Cp. Veitch, p. 529.

92) *σπεῖν* belonging to *ἔπω* in Homer (*οἳ πάντες ὀλέθριον ἦμαρ ἐπέσπον* T 294, *ὄφρα—ἐπίσπῃ* B 359, *μετασπών* P 190), Aeschylus (*ἐπέσπε* Pers. 552) and Herodotus (*περιέσπε* vi. 44).—*σπέ-σθαι* (with the reduplicated *ἑ-σπέσθαι*) in Homer, Herodotus, and Attic writers (*Τρωσὶν ἅμα σπέσθαι* E 423 (v. l. *ἑσπέσθαι*), *σπεῖο* K 285, *ἐπίσπῃ* Soph. El. 967, *ἐπισπόμενοι* Thuc. v. 11).

93) *σπεῖν* 'say,' *ἔνι-σπο-ν*, from Homer onwards (B 80, *ἐνί-σποι* Ξ 107). The imperative *ἔ-σπε-τε* perhaps for *ἔν-σπε-τε.* Cp. above p. 280.

94) *ἔ-στιβε-ν· ἐπάλυνεν* Hesych.

95) *στιχεῖν* Π 258 *ἔστιχον*, then in Alexandrine poets: for the traces of a present *στίχω* cp. p. 155.

96) *στυγεῖν* rare in Homer and later poets (*κατὰ δ' ἔστυγον αὐτήν* κ 113, Apollon Rhod. ii. 1196).

97) *σχεῖν*, *σχέ-σθαι* in all Greek. For *σχέ-ς* cp. pp. 132, 279.

98) *ταμεῖν*, *ταμέ-σθαι* are the forms usual in Homer, Herodotus and Pindar, instead of which we have in Attic *τεμεῖν*, *τεμέσθαι* (*τέμενος τάμον* Υ 184, *ταμέσθαι* Herod. v. 82.—*τεμοῦσα* Soph. El. 449, *ἔτεμον* Isocr. 8, 100).

99) *ταρπώμεθα* only in the phrase *ταρπώμεθα κοιμηθέντες* Ω 636, *δ* 295, *ψ* 255.

100) *ταφεῖν* here and there in poets from Homer onwards (*ταφὼν δ' ἀνόρουσεν Ἀχιλλεύς* Ψ 101).

101) *τεκεῖν* in all Greek.

102) *δι-έ-τμαγο-ν* only in *η* 276 *τόδε λαῖτμα διέτμαγον.*

103) *ἔ-τορε* only in Λ 236 *οὐδ' ἔτορε ζωστῆρα.*

104) *τραγεῖν* established from Attic comedians (Aristoph. Ach. 809), Hippocrates and late prose.

105) *τραπεῖν*, *τραπέ-σθαι* common from Homer (Υ 439, Π 594) onwards; the middle not unknown even to Attic prose.

106) *τραφεῖν*, transitive *ἔτραφέ τ' ἐνδυκέως* (v. l. *ἔτρεφε*) Ψ 90, *τράφε* Pind. Nem. iii. 53, intransitive 'grow up' E 555 and elsewhere: so in later poets.

107) *τυπεῖν*, the only evidence in early times is Eur. Ion 767 (*ἔτυπεν*), then first in Achilles Tatius.

108) *τυχεῖν* in all Greek.

109) *φαγεῖν* the same.

110) *φανέσθαι* a doubtful reading in Xen. Cyr. iii. 1, 34 (*φανοίμην*), imper. *φάνευ* in a Laconian saying in Stobaeus Floril. 108, 83.

111) *ἔ-φλαδο-ν. λακίδες ἔφλαδον ὑπ' ἄλγεσιν* Aesch. Choeph. 28.

112) *φράδεν· ἔλεγεν* Hesych., *ἔφραδεν· ἐδήλωσεν* ib.

113) *φυγεῖν* in all Greek.

114) *χαδεῖν* established from Homer (Δ 24), the Anthology and Hippocrates.

115) *χανεῖν* from Homer (*τότε μοι χάνοι εὐρεῖα χθών* Θ 150) onwards, established mainly from poets, but also from Herodotus and Hippocrates.

116) *χάρο-ντο* only quoted from Quintus Smyrn. vi. 315 *Τρῶες δ' ἔπι μακρὰ χάροντο.*

117) *ἔ-χραισμο-ν, τεῖχος δ' οὐκ ἔχραισμε τετυγμένον* Ξ 66, *χραίσμῃ* O 32 etc., then in Apollon. Rhod. (ii. 218 *χραίσμετέ μοι*).

II. Aorists with Reduplication.

21 The aorists to be discussed here come from the reduplicated stem in just the same way as those hitherto discussed from the non-reduplicated stem. The reduplication therefore serves to strengthen and bring into prominence the verbal stem. After my elaborate attack in *Tempora und Modi* pp. 150 ff. on the view till then generally accepted, that reduplication served to mark the tense, and was akin to the augment, it is hardly necessary at the present time to return to this question. For the position which I then established is now universally admitted for Greek, e.g. by Kühner Ausf. Gr. ii. 513, and has been laid down by Schleicher Comp.[3] p. 739 for the corresponding forms in Sanskrit and Zend. Reduplication, that is to say the repetition—actual or suggested—of the stem, can have had no other purpose than to bring the stem into prominence. We have already (p. 8) had occasion to notice this primitive linguistic resource employed in this way, and we discussed on p. 105 its occurrence in the present, aorist and perfect-stem indifferently. Hence it admits of no doubt that reduplication, like the thematic vowel, was in no way intended originally to denote the nature of the tense. For it is excluded from no one of the three kinds of tenses. We can look back to a time when language formed both a present and a past on the one hand from the pure, on the other from the reduplicated root: thus from

da	*dā-mi*	*dadā-mi*
	a-dā-m	*a-dadā-m*
tarp	*tarpa-mi*	*tatarpa-mi*
	a-tarpa-m	*a-tatarpa-m.*

The only reason why in the first instance the form without reduplication became an aorist, was that the present indicative without reduplication fell out of use. On the other hand the reduplicated *a-tatarpa-m* (cp. *τετάρπετο*) gained an aorist force, because the non-reduplicated form here serves as the present indicative. Hence so far we recognise the closest analogy with the relations already discussed.

22 But a new influence steps in from the fact that we have a third competing tense, the perfect, which we shall learn to regard as a special ramification from the reduplicated present, and this competition is of the greatest importance for the Greek reduplicated aorists. For the aorist, like the perfect, is distinguished from the present-stem in Greek by that delicate phonetic law, which we touched upon on pp. 135 and 189. The vowel *ι* is used without exception for the reduplication of the present-stem; but never for the aorist and the perfect: here we find for the most part

the vowel ε. This remarkable differentiation Delbrück thinks he can show as beginning even in the Indo-Germanic time, inasmuch as in Sanskrit the *i* similarly appears, though only sporadically, in the present-stem, while it is absolutely unknown to the perfect. Hence

ti-shṭhā-mi is to the Doric ἵ-στᾱ-μι and Lat. *sisto*

precisely as *ta-shṭhāu* is to Gr. ἔ-στᾰ-μεν and Lat. *stĕ-ti*.

But Sanskrit treats the aorist in two ways. The *a* is predominant, and to this again a Greek ε corresponds, e g.

a-pa-pta-m (I flew) like ἔ-τε-τμο-ν,

but in many cases, especially in the forms with a causative meaning, ī appears, though the length is not always preserved, and it is therefore regarded by Delbrück (p. 109 ff.) as later than the short vowel; e.g.

a-pī-pata-t (he made to fall) differing from ἔ-πε-φνε

and of like formation with the impf. ἔ-πῑ-πτε, which in meaning attaches itself to the intransitive πέπτω.

By means of this difference in the vowel Greek avoids any confusion of reduplicated aorists with present-stems. But the aorists come thereby all the nearer to the perfects. As in Sanskrit there are past tenses, with regard to which there may be a doubt whether they have come from the perfect-stem by prefixing the augment, and hence whether according to the usual terminology, they are pluperfects or reduplicated aorists, so also in Greek. For Sanskrit Delbrück has thoroughly discussed these questions, and has assigned to some verbs, partly on the ground of their form, and partly from regard to their special force, a place in close connexion with the perfect, while he has made a greater 23
separation in the case of others, though on the whole he has recognised the common origin of all reduplicated forms. I entirely agree with him in this, and believe that we must deal in precisely the same way with Greek. Everything leads us to the conclusion that the reduplicated form was at first only distinguished from the non-reduplicated by the fact that the former represented the action as more intensive. From this common stem on the one hand the perfect was developed, originally merely an intensive present, though gradually by special modifications of the endings it grew into a special form of language. We shall have to discuss this fully in Chap. XVI. But on the other side from the same stem the reduplicated aorist grew, and this again separated itself from the forms of the perfect-stem, mainly by the identity of its endings with those of the non-reduplicated aorist. In the past tense, that is, according to the usual terminology, in the aorist indicative, a confusion with the pluperfect was generally the less possible, that for this tense a compound formation (1 sing. -εα, -η, -ειν) became almost universal in the active, while the forms of the perfect-stem in the middle were sufficiently distinguished from the middle reduplicated aorists by the entire lack of the thematic vowel. The perfect-stem besides has in Greek a preference for the long stem-syllable, the aorist, including the reduplicated, for the short, and in fact for syncope: so that care is thus taken that even the unaugmented form of the 3 sing. aor. πέπιθε is distinguished from the perfect πέποιθε.

In spite of this delicate means of discrimination, there are some cases

in which a decision is not immediately possible. *ἐπέφῡκον* (Hes. Theog. 152) is shown by its *κ* and by its meaning to be a pluperfect. But both these proofs are wanting in *ἐ-μέμηκο-ν*, for the only passage in which the 3 plur. occurs (*ι* 439),

θήλειαι δ' ἐμέμηκον ἀνήμελκτοί περὶ σηκούς,

gives no safe criteria. But we have a word of exactly the same formation in *ἐπέπληγον*, which occurs more frequently, and which is accompanied also by middle forms: E 504

ὅν ῥα (i.e. *κονίσαλον*)
24 *οὐρανὸν ἐς πολύχαλκον ἐπέπληγον πόδες ἵππων:*

cp. Ψ 363 *πέπληγον δ' ἰμᾶσιν*, and further Π 728 *πεπληγέμεν*, which recurs Ψ 660, and *θ* 264 *πέπληγον δὲ χορὸν θεῖον ποσίν*. As this form is accompanied by the equivalent present perfect *πέπληγα* (part. *πεπληγώς*), and as we find here the length usual in the perfect, we shall be inclined to take *ἐπέπληγον* as a pluperfect, and to form the same judgment as to *ἐμέμηκον*, which is accompanied by the synonymous *μεμηκώς* fem. *μεμακυῖα*. The objection may be made, that the infin. *πεπληγέμεν* and the middle forms *πεπλήγετο* (M 162, *ν* 198) *πεπλήγοντο* (Σ 51) prove by their thematic vowel that they have nothing in common with forms like *πεπληγώς* and the post-Homeric *πέπληγμαι*. But this objection does not hold good, for in the first place late poets have the by-form of the participle *πεπλήγοντες* in a present sense (Callim. H. in Jov. 53, Nonnus), and secondly other instances are not wanting in which this vowel makes its way into unmistakeably perfect forms after the analogy of the present. The Homeric *κεκλήγοντες*, well established in M 125 (cp. La Roche Textkritik p. 296, O. Schneider ad Callim. i. 151) by the side of the singular *κεκληγώς* B 222, is sufficient to show that no absolute distinction is possible.—We might add to these forms *ἐκέκραγον*, if its case was more certain. In Anth. Pal. v. 87, 2 we find *κέκρᾰγεν*, but the context requires rather the present, and we are tempted for *κέκραγεν ὡς* to read *κέκραγ' ὡς*. There is only one testimony for *ἐκέκραγον* left, and that from the LXX.—*λελάκοντο*, only in Hymn. in Merc. 145, though it has a short *α*, shows by its meaning 'they bellowed' the closest connexion with the fem. part. *λελακυῖα* *μ* 85, which also has a short *α*, so that we may regard it as a pluperfect just as well as *ἐμέμηκον*.—The same holds good of some imperatives formed without a thematic vowel, which properly do not belong to this group, but which may be discussed here because of their isolated position. The Homeric *κέ-κλῡ-θι* (plur. *κέ-κλῡ-τε*, occurring also
25 once in Pind. Pyth. iv. 13) is to the rt. *κλυ* precisely as *τέ-τλᾰ-θι* is to rt. *τλα*. It is of no consequence that the latter comes by metathesis from *ταλ*. Of the same nature is *κέ-κραχ-θι*. The reason why *τέτλαθι* and *κέκραχθι* are regarded as perfects is that they are accompanied by unmistakeable perfect forms like *τέτλαμεν* (*υ* 311), *τετληυῖα*, *τετληότος*, *κέκρᾱγα*, while these are entirely wanting to *κέκλυθι*. But we can no more talk of any specifically perfect force in *κέκραχθι* than in *κέκλυθι*. The position of the reduplicated forms in the verbal system is therefore just as clearly defined as that of the non-reduplicated. In the case of the latter the occurrence of a present indicative is decisive; in the case of the former the occurrence of a perfect indicative of similar formation. Isolated forms are to be regarded as aorists.—*πέπεισθι* (or *πέπισθι*) Aesch.

Eum. 599 must be regarded as a perfect imperative because of its meaning, which belongs entirely to *πέποιθα*.

Besides Sanskrit and Greek, it is probably only in Zend that we have traces of a reduplicated aorist: these are pointed out by Schleicher Comp.[3] 742. The only thematic formation mentioned by him is *ta-tasha-t*, he wrought, from rt. *tash*=Skt. *taksh*. The 3 sing. perf. of the same rt. is in Zend *ta-tasha* (cp. Justi Handbuch, p. 133). Thus here too the two tenses strongly resemble each other.

The reduplication-syllable in Greek has always *ε*. The exceptions are very few. In the first place there is a quite isolated form, from a stem beginning with a consonant, in the participle quoted by Hesych. *πα-φώ-ν· κτείνας* (cp. Lobeck, Rhemat. 9) which evidently belongs to the perf. *πέ-φα-νται*, *πε-φά-σθαι* (cp. *φό-νο-ς*). We should have expected *πε-φών* (cp. *ἔ-πε-φνο-ν*), just as the rt. *φα* 'shine' gives us the non-thematic aorist *πέ-φη· ἐφάνη* Hes. We have to mention besides a number of stems beginning with a vowel, in which we find the so-called Attic reduplication, familiar from the perfect formation. This occurs in six aorists, five of which, i.e. *ἀγ-αγεῖν*, *ἀκ-αχεῖν*, *ἀλ-αλκεῖν*, *ἀπ-αφεῖν*, *ἀρ-αρεῖν* have *α*, one, i.e. *ὀρ-ορεῖν* has *ο* as the stem-vowel. Delbrück, p. 111, points out some Vedic forms completely corresponding: *ām-ama-t* from rt. *am* 'damage,' and with a weakened stem-vowel *ān-ina-t* from rt. *an* 'breathe,' *ārd-ida-t* and *ārp-ipa-t* with a loss of the *r* also, from the rts. *ard* 'press' and *ar-p*, an expansion of *ar* 'to fasten in.' This agreement 26
is all the more remarkable that this kind of reduplication is unknown to Sanskrit in the perfect. We shall return to it under the head of the perfect.—There is a case of Attic reduplication with *ε* in the stem and reduplication syllables in *ἤν-εγκο-ν* (Principles i. p. 384) from a rt. *ἐγκ*, which is regularly interchanged with *nank* (Lat. *nanc-i-sco-r*). In the Homeric *ἐνεικέμεν* T 194 the nasal has disappeared with compensatory lengthening (Joh. Schmidt, Vocalismus i. 122).

In the stem-syllable, which, as we saw above, rejects a long vowel, we have just the same phenomena as in the non-reduplicated forms, i.e. the preference for the vowel *α*, which appears in at least 20 cases out of 41, and the metathesis and loss of vowels: with regard to the choice between the former and the latter of these the same doubt presents itself as in the non-reduplicated forms. *ἐ-κέ-κλε-το* (rt. *κελ*), *ἔ-σπε-το*, *ἔ-τε-τμο-ν*, *ἔ-πε-φνο-ν* are to be judged just in the same way as *ἔ-σχο-ν*, and the other words discussed on p. 279. The rejection of a *ρ* appears in *με-μάπο-ιεν* Hes. Sc. 252 (*μαπέειν* 231, 304), a process which finds its analogy in the Sanskrit forms *ārd-ida-m*, *ārp-ipa-m* mentioned above.—Contraction after the loss of a *ϝ* appears in *ἔ-ϝειπο-ν*, which Sonne first in his Epilegomena to Benfey's Wurzellexikon (1847) p. 39, and then independently Ebel Ztschr. ii. 46 (1853) compared with the Skt. *a-vōka-m* for **a-va-vaka-m*. There is, however, one objection to this attractive comparison. The diphthong *ει* in *εἰπεῖν* occurs even in dialects which contract *εε* into *η*: thus in Alcaeus Fr. 55 *θέλω τι ϝειπῆν*, though here the reading is not quite certain. We should have expected *ϝηπῆν*, after the analogy of *ἦχες*=*εἶχες* (Sappho 29). And Priscian i. § 54 does actually quote an Aeolic *ἤπον*. But in Old Attic also the common *εἶπεν* is always written with a diphthong (Cauer Stud. viii. 257). Perhaps we must presuppose **ϝε-ϝιπο-ν* formed after the analogy of

Sanskrit forms like *ān-ina-t*. The *ι* of *ὀν-ίνη-μι* and *ὀπ-ιπ-εύω* arises from a similar weakening.—*ἐνένῐπο-ν* with the by-form *ἠνίπαπον*, and *ἐρύκακο-ν* are quite irregular. *ἐν-έν-ῐπε-ν*, for which *ἐν-ενίπτε-ν* is a bad variant, may be simply explained from a mistake as to the preposition, 27 just as *ἤνεπε*, *προςήνεπε* are forms occurring in the M.SS., which Bergk has adopted in Pind. Nem. x. 79, Pyth. iv. 97. Cp. Rich. Fritzsche Stud. vi. 332. *ἠνίπαπον* and *ἐρύκακον* are so far parallel forms that both have apparently suffered internal reduplication, and in spite of the difference in the vowels of the second syllable have *α* in the third. For *ἠνίπαπον* Ebel Ztschr. ii. 48 following Pott has suggested the explanation from the rt. *ῐπ*, interchanging with *ἰαπ*, and in Principles ii. p. 59. I have expressed my concurrence. Here the preposition has received the temporal augment. We must regard *ἐν-ῐπ-jάπε* as the original form. The syllable *jαπ* is reduplicated by *ῐπ*. The latter form also is preserved in the verb *ἴπτεσθαι* 'to damage.' To understand *ἐρύκ-ακο-ν* we must start from the rt. *ϝερ*, with the meaning 'to watch, guard,' which I have discussed in its relation to the Homeric *ἔρυσθαι*, *εἰρυσθαι* in Stud. vi. 272 ff. Expanded by a *u*, and extended by a *κ* (cp. *ὀλέ-κω*, *ἐ-πτα-κο-ν*) we find *ἐρύκω* with the exclusively negative meaning (so to say) 'to ward off': this is related to the meaning of *εἴρυσθαι*, as *εἴογειν* 'to shut out' is to *εἴργειν* 'to shut in.' *ἔρ-κ-ος* contains the expansion without the *ν*. We must therefore, if *ἐρύκακο-ν* has really been formed by reduplication, assume that there were originally two expanded forms *vark* and *varuk*, and that the two are here united. I regard **varuk-varka-m* as the original form. From this came **varuk-vaka-m*, through the same loss of the *r* as that which we saw in the case of rt. *μαορ*, and in the Vedic forms *ārd-ida-m*, *ārp-ipa-m*, and then with a rejection of the *ϝ* **varuk-aka-m*, in Greek letters *ἐρύκακο-ν*. We may compare to some extent the perfect *ὑφ-ήφασμαι*, though this only rests on the evidence of grammarians (cp. Principles i. 369).

It is noteworthy that all reduplicated aorists, with the exception of *ἀγαγεῖν*, and also of *εἰπεῖν* and *ἐνέγκεῖν* which have become unrecognisable as such, owing to phonetic affections, are limited to the language of poetry, and for the most part find their place among the archaisms of Homer. We will now give a list of all such forms.

1) *ἀγ-αγεῖν* from Homer (*ἤγαγε* Z 291, *ἄγαγεν* Λ 112, *ἠγάγεθ' Ἕκτωρ* X 471) onwards, common in the active and middle.

2) *ἀκ-αχεῖν*, *ἀκαχέσθαι*, quoted from Homer, Hesiod, and Alexandrine poets: *μέγα δ' ἠκαχε λαὸν Ἀχαιῶν* Π 822, *θυμῷ ἀκαχών* Hes. 28 Theog. 868, *μνηστῆρες δ' ἀκάχοιτο* π 342. The reduplicated stem extends through all tenses, *ἀκαχίζω*, *ἀκάχησα*. Cp. *ἄχος*.

3) *ἀλ-αλκεῖν* from Homer onwards in non-Attic poets: *ὅπως τί μοι ἄλγος ἀλάλκοις ν* 319, *πόλεμόν περ ἀλαλκών* I 605. *ἀλαλκε δὲ Χείρων* Pind. Nem. iv. 60. We find also *ἀλαλκήσω* in Apollon. Rhod.

4) *ἀπ-αφεῖν*. The active occurs frequently in poets: *παοήπαοε* Ξ 360, *ἐξαπαφών* Eur. Ion. 704 ch.: the middle only I 376. ♃ 216 (*ἀπάφοιτο*). Reduplication occurs also in the present *ἀπαφίσκω*.

5) *ἀρ-αρεῖν* poetic, *τούς τε κλυτός ἤραρε τέκτων* Ψ 712, *ἀλλ' ἐμέ γ' ἀ στονόεσσ' ἄραρεν ὀρέγας* Soph. El. 147, *ἀραρόατο* in Apoll. Rhod.

6) *δέ-δαε* 'taught' only in the Odyssey: *θ* 448, ♃ 160.

7) *δέ-δακε* only in Anth. xii. 15.

8) *εἰπεῖν* in all Greek: Homer, *ἔειπον* cp. p. 79.

9). *ἐνένιπε* only in Homer and Quintus Smyrn. *Ἰκεταονίδην ἐνένιπεν* O 546, Ψ 473.

10) *ἠνίπαπε*, exclusively Homeric Γ 427, *ν* 17.

11) *τέ-θιγεν· ἤψατο*, probable reading in Hesychius for *τέθειγεν*. Lobeck El. i. 155. Cp. *θιγεῖν*, p. 285.

12) *τε-θορ-εῖν· διαπηδῆσαι* Hesych., though out of the alphabetical order. Cp. *θορεῖν*.

13) *κε-καδεῖν, κεκαδέσθαι*, exclusively Homeric, *θυμοῦ καὶ ψυχῆς κεκαδών* Λ 334, *ὑπὸ δὲ Τρῶες κεκάδοντο* Δ 497, O 574 : from the same stem *κεκαδῆσαι· βλάψαι* Hesych. For the root cp. Principles i. 300.[1]

14). *ἐ-κέ-κλε-το* poetic Z 66, *κέκλετ'* Π 421 etc. *κέκλεν* Pind. Isthm. vi. 53, *κεκλοίμαν* Aesch. Suppl. 591 ch., *κεκλόμενος* Soph. O. T. 159 ch., *κέκλεο· κάλεσον* Hesych. Later poets form besides a present *κέκλομαι* Apollon. Rhod. i. 716 (*κέκλεται*). In Hesych. we actually find the active *κεκλεῖ*, or, as emended by Lobeck Rhem. 112, *κέκλει*. This is the same phenomenon which we met several times in the case of the non-reduplicated aorist.

15) *κε-κύθω-σι* only in *ζ* 303 *ὁπότ' ἄν σε δόμοι κεκύθωσι καὶ αὐλή*. 29 Cp. *ἔ-κυθο-ν* p. 285.

16) *λε-λαβέ-σθαι* only in *δ* 388 *τόν γ' εἴ πως σὺ δύναιο λοχησάμενος λελαβέσθαι*, with *λαβέσθαι* p. 285.

17) *λέ-λαθο-ν, ἐκλέλαθον κιθαριστύν* (3 pl.) B 600, *λελάθῃ δ' ὀδυνάων* O 60, on the other hand *λελάθοιμι* in the sense of *λάθοιμι* Apoll. Rhod. iii. 779.—*λελάθοντο, οὐδὲ σέθεν θεοὶ λελάθοντο* Δ 127, *μὴ τίς μοι ἀπειλάων λελαθέσθω* Π 200, *λελάθοντο δὲ μαλοδροπῆες, οὐ μὰν ἐκλελάθοντ'* Sappho Fr. 93 B[3]. The middle always means 'to forget'; only in Hes. Theog. 471 'to conceal.'—There is a present *ἐκλελάθων*, if this is the right reading in Theocr. i. 63 as an epithet of Hades.

18) *λε-λάκο-ντο* only Hymn. in Merc. 145, cp. above p. 290, for *ἔ-λακο-ν* p. 286.

19) *λέ-λαχο-ν, ὄφρα πυρός με Τρῶες καὶ Τρώων ἄλοχοι λελάχωσι θανόντα* H 80 (cp. O 350, X 343).—*λελάχοι*=*λάχοι* Anth. Pal. vii. 341.

20) *με-μάπο-ιε-ν* Hes. Scut. 252; the reading *γῆράς τε μέμαρπον* ib. 245 is by no means certain.

21) *ὤρ-ορε* transitive 'aroused' *τὰ μέν τ' Εὖρός τε Νότος τε ὦρορ' ἐπαΐξας* B 146 (cp. N 78, *δ* 712), intransitive 'rose' *ὦρορε θεῖος ἀοιδός θ* 539.

22) *πε-παγο-ίη-ν* is quoted from Eupolis by the Scholiasts on Ξ 241 among aorist forms. There seems to me to be no good ground for doubting such a form, as is done by Buttmann A. Gr. II[2] 273 and Ahrens Dor. 330.

23) *πε-παλών. ἀμπεπαλὼν προΐει δολιχόσκιον ἔγχος* Γ 355.

24) *πε-παρεῖν*, a reading well supported and accepted by Boeckh, Bergk, and T. Mommsen in Pind. Pyth. ii. 57 *ἐλευθέρᾳ φρενὶ πεπαρεῖν*, with the meaning of *ἀποδεῖξαι*: cp. Hesych. *πεπαρεῖν· ἐνδεῖξαι, σημῆναι, πεπαρεύσιμον, εὔφραστον*. Boeckh in his *notae criticae* rightly recognised in this word a stem akin to the Lat. *apparere*, but having nothing to do with *πορεῖν*.

25) *παφών*, occurring only in Hesych., and discussed on p. 291.

26) *πε-πιθεῖν. πε-πιθέ-σθαι*, quoted from Homer, Pindar and later

[1] *κε-κάμω* a reading, rejected by Aristarchus and Herodian, for *ἐπεί κε κάμω* A 168. Cp. H 5 *ἐπεί κε κάμωσιν*, P 658, and La Roche Textkritik, p. 295.

poets: *πέπιθεν φρένας* Hymn. in Apoll. Pyth. 97, *πεπίθωμεν* I. 112,
30 *πεπιθεῖν* ib. 184, *πεπιθών* Pind. Isthm. iv. 90 *πεπιθοῦσα θυέλλας* O 26. —*οὐκ ἂν δή τις ἀνὴρ πεπίθοιθ' ἑῷ αὐτοῦ θυμῷ* K 204.

27) *ἐ-πέ-πληγο-ν πόδες ἵππων* E 504 and elsewhere in Homer. Other forms, some middle, have been mentioned above, p. 290.

28) *πε-πορεῖν· δοῦναι* Hesych. cp. *πορεῖν* p. 286.

29) *πε-πυθέ-σθαι, εἴ κεν ἐμὲ ζωὸν πεπύθοιτ' ἐπὶ νηυσὶν Ἀχαιῶν* Z 50, K 381 (cp. Λ 135). *πεπύθωνται· ἀκούσωσιν Ἀττικῶς* (?) Hesych. Aristarchus recognises the reduplicated form in Z 50.

30) *ἑ-σπέ-σθαι* has so completely coalesced with the non-reduplicated *σπέ-σθαι*, that it can only be clearly recognised in forms which do not admit the augment, like *ἅμ' ἑσποίμην τ* 579, *ἅμ' ἑσπέσθαι* E 423 (according to the cod. Ambros.; other M.SS. *ἅμα σπέσθαι*), and still more indubitably in Pind. Ol. viii. 11 *ᾧτινι σὺν γέρας ἕσπητ' ἀγλαόν*.

31) *τε-ταγών, ποδὸς τεταγών* A 591 (cp. O 23), with Lat. *tango*, old Lat. conj. *tagam* [Stud. v. 431].

32) *τε-τάρπετο, αὐτὰρ ἐπεὶ φρεσὶν ᾗσι τετάρπετο δαίδαλα λεύσσων* T 19, *τεταρπώμεσθα γόοιο* Ψ 10, *τεταρπόμενος* α 310.

33) *ἔ-τε-τμο-ν* in Homer, Hesiod and later poets always in the meaning 'come upon,' *ἔτετμε* Δ 293, *ὄφρ' ἔτι οἶκοι ἀμύμονα μητέρα τέτμῃς* o 15, *τέτμοιμεν* Theocr. xxv. 61.—*ἐ-τέτμετο ἄσπετος ἅλμη* Orph. Arg. 366, where on the ground of the difference of meaning Ruhnken and G. Hermann read *ἐτέμνετο*.

34) *τέ-τορε-ν· ἔτρωσεν, ἐτέτορεν· ἐτρύπησεν, τετύρῃ· τρώσῃ* Hesych. Cp. *ἔ-τορε*.

35) *τε-τυκεῖν* only in *o* 77, 94 in the phrase *δεῖπνον ἐνὶ μεγάροις τετυκεῖν*: the middle is common in Homer: *τετύκοντο δὲ δαῖτα* A 467 etc. Cp. Callim. Dian. 50, *τετυκοίμεθα δόρπον μ* 283, *τετυκέσθαι φ* 428.

36) *τε-τυπόντες* only Callim. Dian. 60 *ῥαιστῆρες ἢ χαλκὸν—ἠὲ σίδηρον ἀμβολάδις τετυπόντες*. O. Schneider (ad Callim. i. p. 150) accents *τετύποντες*, and takes the form as a present-like perfect like *κεκλήγοντες*, but a perfect *τέτυπα* is quite unknown.

37) *τετύχῃσι, τετύχοιεν* quoted only from very late poets (Maximus, Manetho). But *τετύχῃσι* was recognised even by Aristarchus and his commentator Aristonicus on Λ 116 as a variant for (*εἴπερ*) *τε τύχῃσι*.

38) *πε-φιδέ-σθαι*, Homeric: *πεφιδοίμην ι* 277, *πεφίδοιτο* Υ 464, *πεφιδέσθαι* Φ 101.

31 39) *ἔ-πε-φνο-ν* poetical: *ὃν ἐπέφνομεν ἡμεῖς* K 478, *πέφνεν ματέρα* Pind. Pyth. xi. 37, Soph. O. T. 1497. Other forms only Homeric: *ἦν τινα πέφνῃ* Υ 172, *πεφνέμεν* Z 180, *καταπεφνών* P 539, *πεφνόντα* Π 827: Aristarchus and Herodian accentuated *πέφνων*: cp. Herodian on Π 827, Herodian ed. Lentz i. 470. In Oppian Hal. ii. 133, v. 390, *πέφνουσι* as 3 pl. pres.

40) *ἐ-πέ-φραδο-ν* only in Homer and Hesiod: *ἐπέφραδε* Π 51, *πεφραδέτην* Hes. Theog. 475, *πεφράδοι* Ξ 335, *πεφραδέμεν η* 49. Cp. *φράδεν*.

41) *κε-χάρο-ντο* Π 600, *κεχαροίατο* A 256, *κεχαροίμεθα* Philox. Fr. 2, 24 Be.[3], cp. *χάροντο* and *κεχαρήσω*.

At the close of this survey we may point out how large a number of these reduplicated aorists have by-forms without reduplication, not less than 19 out of 41, i.e. *δέδακε* (7) and *δακεῖν*, *τέθιγε* (11) and *θιγεῖν*, *τέθορε* (12) and *θορεῖν*, *κεκύθωσι* (15) and *κυθεῖν*, *λελαβέσθαι* (16) and

λαβέσθαι, λέλαθον (17) λέλακον (18), λέλαχον (19), and λαθεῖν, λακεῖν, λαχεῖν, μεμάποιεν (20) and μαπέειν, ὦρορε (21) and ὦρετο, πεπυθέσθαι (29) and πυθέσθαι, ἑσπέσθαι (30) and σπέσθαι, τετάρπετο (32) and ταρπώμεθα, ἔτετμον (33) and ἔτεμον, τέτορεν (34) and ἔτορε, ἐπέφραδε (40) and φράδεν, κεχάροντο (41) and χάροντο: and to these we may add κέκλυθι, κέκλυτε formed directly from the root, as mentioned on p. 290, by the side of κλῦθι and κλῦτε.

We have often pointed out under the several heads the prominent peculiarities of usage. We expect to find always in the stronger form a more forcible meaning. An intensive force may be detected most clearly in the Homeric use of ἐκέκλετο by the side of κέλετο, in κέκλυθι as compared with κλῦθι, and in the two 'aorists of rebuke' ἐνένιπε and ἠνίπαπε. The isolated aorist τεταγών too has certainly derived its forcible meaning of 'seizing' as compared with Lat. *tangere* by the help of reduplication. We might conjecture the same for ἀμπεπαλών. In the case of λελάκοντο, as we have already intimated, the meaning 'howl' as compared with λακεῖν 'to sound' depends upon the same. The force of ἀκαχεῖν, ἀραρεῖν, δεδαεῖν, κεκαδεῖν is decidedly causative, and the same is especially clear in ὀρορεῖν, in λέλαχον and λέλαθον. In the 32
case of λελάχωσι Aristarchus remarked on H 80 'ἀντὶ τοῦ λαχεῖν ποιήσωσι.' The isolated πεπαρεῖν is to *apparere* as λελαχεῖν is to λαχεῖν. There were often departures from this usage in particular instances. But if we compare the causative force of this device of language in the Sanskrit aorists, and in presents like ἵστη-μι=*sisto* its use can hardly be a matter of chance.—In ἔτετμον the usage has been otherwise differentiated, for the reduplicated form is limited to the meaning 'hit upon.'

An anomaly of tolerably wide extent, which the reduplicated aorist shares with the thematic, is found in the occurrence of an *α* instead of the usually alternating vowels *ο* and *ε*. This appears partly only in the post-classical language, but partly also in the language of earlier times, and even in that of Homer. I mean forms like εἶπα, ἠνέγκαμεν for εἶπον, ἠνέγκομεν, and others which made their appearance in Alexandrine or even later times (e.g. ἔλαβαν). The right view of ἔ-δωκα, ἔ-θηκα, ἧκα is also connected with this question. But as this whole process rests upon a confusion of the analogies of the thematic and the sigmatic aorists, it cannot be more fully discussed, except in connexion with the sigmatic formation (Chap. XVII.).

CHAPTER XIV.

THE MOODS OF THE PRESENT AND SIMPLE AORIST STEM.

AFTER our survey of the formation of the present stem and the simple aorist stem, each in its twofold form, with or without the thematic vowel, it remains for us to discuss the signs of the moods and of the verbal nouns. In this chapter we have to do with the moods; and I place first the Imperative, as being that mood which shows the least difference from what is conjecturally the most primitive form of the indicative.

33 I. IMPERATIVE.

According to the usual logical scheme, the imperative is here placed on the same line with the conjunctive and optative. But in formation the imperative is completely different from the two other moods. In the latter the modal element comes in between the stem and the ending, and hence in the same place in which we found the numerous expansions of the stem in the case of the formation of the present:

indic. *ἴ-μεν*	conj. *ἴ-ο-μεν*
,, *φέρο-μεν*	opt. *φέρο-ι-μεν.*

We see at once that there is an analogy between the expansion of the verbal stem to the present stem, and the formation of conjunctive and optative forms. On the other hand the imperative is either not at all distinguished from the indicative, e.g. in *φέρε-τε*, *φέρε-σθε*, or it is distinguished only by the different form of the personal endings. The place of the imperative formation is to be sought here, i.e. solely in the last syllable of the verbal forms:

ind. *ἴ-στη-ς*	imper. *ἴ-στα-θι*
,, **φέρε-σι*	,, *φέρε*
,, **φέρε-σαι*	,, **φέρε-σο*

to use here the most common and indubitable original forms by the side of those actually in use.

The second persons of the plural and dual in the active and middle: *φέρετε*, *φέρετον*—*φέρεσθε*, *φέρεσθον* are not at all to be distinguished from those of the indicative. In the case of the 2 plur. we might indeed conjecture, after the analogy of the distinction in Latin between *fer-tis* and *fer-te*, that the Greeks too were not unacquainted in earlier times with this distinction between the indicative and imperative. We may refer for a conjectural **φέρε-τες* to p. 45. But there is little probability in this conjecture, for it is only from Latin that we can argue to such a distinction; and *fer-tis*, *legi-tis* show high antiquity. The loss of a final *s*, in Latin limited to the imperative, extended in Greek also to the indicative. Sanskrit has in the 2 pl. of the indicative *-tha*, in the same

form of the imperative and of the historical tenses *-ta*; so that here a 34
distinction arises between *bhara-tha* 'fertis' and *bhara-ta* 'ferte'; but this distinction is not one which anyone would be inclined to maintain had been created for the special meaning of these two forms. The same is the case with the middle. Greek knows no distinction between φέρε-σθε as an indicative and as an imperative, just as little as in this case Latin knows with its *ferimini*. In Sanskrit the imperative has the secondary ending *-dhvam*, so that here too the indicative *bhara-dhvē* is distinguished from the imperative *bhara-dhvam*. The weaker form in Greek made its way into the indicative, as it did also in the active. The second persons of the dual e.g. φέρε-τον, φέρε-σθον also have to serve for indicative and imperative alike, while Sanskrit, just as in the plural, assigns weaker endings to the latter mood, and so arrives at a separation between indicative and imperative. Now as the separation of imperative from indicative forms extends much farther in the 2 sing., it seems to me probable that the stamp given to the mood began here, and that starting with this it was by degrees attempted rather than carried out in the case of other imperative forms. Even in the 2 sing. the Vedic dialect often uses the indicative in place of the imperative form, e.g. *mā-si* as well as *mā-hi* and the like, as Delbrück points out p. 34.

Hence our investigation of the imperative forms limits itself essentially to three points, the formation of 2 sing. in the active, that of the same person in the middle, and the forms in -τω, -τω-ν, -σθω, -σθων (which cannot be separated one from the other), together with anything which may be connected with them.

A) Formation of the 2 Sing. Act.

1) Termination -θι.

This ending is entirely limited to the primitive conjugation, and hence never appears after a thematic vowel. The same is true of the corresponding Sanskrit termination *-dhi* and its weaker by-form *-hi*. The agreement here is therefore complete, and we may put a number of Greek imperatives in -θι side by side with Sanskrit ones, without finding any other differences than those which proceed from the phonetic laws 35
and tendencies of the two languages: e.g.

i-hi = ἴ-θι
pi-pṛ-hi = (ἐμ)πί-πλη-θι
çru-dhi = κλῦ-θι
pā-hi = Aeol. πῶ-θι 'drink.'

If there were active forms corresponding to τά-ι ν-ται (p. 113), the imperative would necessarily be *τά-ι ν-θι (cp. ὄμνυ-θι), which would correspond exactly to the Vedic *tanu-hi*. *ē-dhi* 'be,' coming with an unusual change of sound from *as-dhi*, corresponds to the Gr. ἴσ-θι, for which Hecataeus used the regular form ἔσ-θι (Herodian ii. 355). Quite in the same way Zend, in which the aspirate *dh* is regularly represented by *d*, forms from rt. *i* the imper. *i-di*=ἴ-θι, from *gâ* *gai-di* (with an epenthesis of *i*)=βῆ-θι, from *zâ* 'know' (by the side of *zan*=Gr. γνω) *z-dî*=γνῶ-θι.

It is seen at once from these comparisons that the treatment of the

root-vowel is not always the same. Sometimes it appears long, sometimes short. There is the same variation as was discussed on p. 96 and in the case of the aorists on p. 135. In the aorists, where the form is retained complete, the vowel is as a rule long: *βῆ-θι*: *θ* 492 (Lacon. *κά-βα-σι* Hesych.), *γνῶ-θι* common, *δῦ-θι* Π 64, *κλῦ-θι* Homeric, also in the tragedians, *πῖ-θι* (Arist. Vesp. 1489), *ἀπό-πτη-θι* 'fly off' (Philostr. Epist. 11), *στῆ-θι* Ψ 97 (Lacon. *ἄτρασι· ἀνάστηθι* Hesych.), *τλῆ-θι* (Soph. Philoct. 475). Presents with a long vowel, and hence after the analogy of the indicative, are furnished in the singular by *δίδω-θι* and *ἵλη-θι* *γ* 380

ἀλλὰ ἄνασσ' ἵληθι, δίδωθι δέ μοι κλέος ἐσθλόν,

cp. *ἵληθ'* *π* 184. For the latter later poets, e.g. Theocr. xv. 143, Callimachus Hymn. vi. 139 have *ἵλαθι*. We may add *ἐμπίπλησθι* *ψ* 311, and *ζῆθι*, quoted from the *γνῶμαι* of Menander v. 191, a line which can hardly have come down to us correctly. A short vowel appears in the ordinary *ἴθι*, in the Attic *φᾰ́-θι*, which is used from Aristophanes downwards, in *ἔλλαθι* discussed on p. 119, in *ὄμνυθι* (Ψ 585) and in *ὄρνυθι* (Z 363).

2) ς for *θι*.

Six aorist imperatives in ς, i.e. *δός*, *θές*, *ἕς*, *σχές*, *φρές* (*ἔκφρες* Aristoph.
36 Vesp. 162) and the Homeric *ἐνί-σπες* (Λ 186 and elsewhere) are generally explained as arising from the primitive forms **δό-θι*, **σχέ-θι* etc. by the loss of *ι* and the change of the *θ*, which cannot stand as a final letter, into ς. But in no language are there primitive forms of the kind assumed, and it deserves to be carefully noticed that by the side of the present *φά-θι*, which may be to a certain extent compared, there is no trace of any form **φά-ς*. And the only certain instances of the change of a final *τ* into ς are *προτί πρός*, **βεβηκότ βεβηκός*. The origin of the local adverbs *ἔνδος* and *ἔξος*, quoted by grammarians sometimes generally as Dorian, sometimes specifically as Syracusan, from *ἔνδοθι* and **ἔξοθι*, is as Ahrens Dor. 366 justly notices, by no means clear. Hence I do not regard the ordinary explanation of these imperatives as absolutely certain. Since in the dialect of the Vedas the termination *-si* in the case of primitive verbs is not quite unknown to the imperative: e.g. *gē-shi* 'conquer,' *mā-si* 'measure,' *jā-si* 'go,' it would not be impossible that *δός* should be shortened from **δό-σι*, like *δίδω-ς* from **δίδω-σι* = Skt. *da-dā-si*. This view might also be supported by a Latin analogy in the 2 sing. imper. *es* from the root *ed*, which as Neue Formenl. ii.[2] 603 shows, is certainly established by one instance in an inscription and several in Plautus. Merguet in 'Die Entwicklung der lat. Formenbildung' p. 244 suggests doubtfully that this form 'descends from a time when this imperative still ended with a dental, before which *d* then passed into *s*', that is, that *es* originated in **ed-di*, **es-di* = Skt. *ad-dhi*. But as there is no trace of any termination *-di* on Italian soil, and as there is little probability in the group *sd*, it is perhaps simpler to think of an indicative **essi es* which was used at the same time as an imperative, and to assume the like in the case of *es* also. Still we cannot consider the older view of the Greek imperative forms in -ς as one to be at once rejected.

3) Imperatives without any termination from verbs without a thematic vowel.

Some of these imperatives have shorter by-forms without any personal ending, as ἔνι-σπε (δ 642) by the side of ἐνί-σπες, which was mentioned above p. 132, κάθ-ε · with the strange explanation ἐπίδος Hesych., σχέ established 37
by the metre in the oracle quoted by Schol. on Eurip. Phoeniss. v. 638 (ed. Dindorf iii. 178 l. 1) τήνδε σὺ ἡγεμόνα σχέ περιτρίπτοιο κελεύθου, ἐπί-σχε, the reading of the M.SS. Hes. Scut. 446, where there is no occasion with Goettling to read the present ἔπ-ισχε, inasmuch as the aorist is better suited to the passage (Ἄρες, ἐπίσχε μένος κρατερὸν καὶ χεῖρας ἀάπτους), κατά-σχε the reading of the M.SS. in Eurip. Herc. Fur. 1210, for which Elmsley and after him Dindorf and Kirchhoff read κατά-σχεθε, παρά-σχε the traditional reading in Eurip. Hec. 842 (πιθοῦ, παράσχε χεῖρα τῇ πρεσβύτιδι) for which παράσχες is now read. Porson justly defends παράσχε, though he judges otherwise on Orest. 1330. Finally the Bodleian with other M.SS. has the same form in Plato's Protagoras p. 348 a. Goettling (Allg. Lehre vom Accent p. 45) recognised that in these forms the accent properly falls on the penultimate. Recent editors have been reluctant to accept any of them, and in Attic prose there are difficulties in admitting anything so isolated, contrary to the prevalent usage, so long as it is not abundantly established. But the case is different with the language of poetry. The question is whether in such forms the termination is to be supposed to have dropped off, in which case they would serve to confirm the assumption of the origin of the ς in θι : σχέ would then be to σχέ-ι and the original *σχέ-θι as οὕτω to οὕτως and the hypothetical *οὕτωτ. But if we take into consideration forms like παρέσχο-ν, παράσχω, παράσχοιμι, to which παράσχε bears just the same relation as πάσχε to ἔπασχον etc., and reflect how strong the tendency is universally to confuse the primitive formation with the thematic, it seems to me incomparably more probable that we have to admit this explanation also in the present instance, that is, to regard παράσχε etc. just like παρασχόντων etc. as thematic formations.

We may mention here two other imperatives without terminations, which present themselves, apparently very anomalously, by the side of the regular βῆ-θι, στῆ-θι,—the well-established forms *βᾶ and *στᾶ, occurring however actually only in composition : ἔσβᾶ Eurip. Phoen. 193, ἔμβα Eur. El. 113, ἐπίβα Theogn. 847, κατάβᾶ Vesp. 979, πρόβᾶ Ach. 262—ἄνστᾶ Theocr. xxiv. 36, παράστᾶ Menander (Comici iv. 105 no. II.). 38
As in Attic writers α in place of η would be unprecedented, we cannot suppose them to have originated from βᾶ-θι, στᾶ-θι by a loss of -θι, and must rather assume here too a transition to the thematic conjugation. The forms quoted are not, so far as their formation goes, primitive aorist imperatives, but thematic present imperatives from βάω (discussed on p. 148) from which προβῶντες *inter alia* is quoted from Cratinus (Com. ii. p. 88). Certainly we have no authority for *στάω, but it corresponds exactly to the Latin *sto*, so that the imper. *stā* is completely identical with Gk. στᾶ. This explanation, suggested already by Lobeck on Buttmann ii.[2] 125, of course does not exclude the assumption that these forms were syntactically accounted as aorists, because the corresponding indicative presents were obsolete. This view is confirmed by the form

ἔμβη which appears in Ar. Lys. 1303, though not without the variant ἔμβα. ἔμβη occurs in the Laconian final song; it can only be explained as a Doric form by supposing it is contracted from *ἔμβαε. Whether the form πῶ by the side of πῶθι, quoted in Et. Magn. p. 698, 52 from an Aeolic poet (χαῖρε καὶ πῶ) originated in the same way, depends upon the judgment we form upon present forms with a like ending.

We now turn therefore to those present imperatives of the conjugation in -μι, which have altogether lost the syllable θι. Such forms are certainly not less numerous than those which retain θι, especially if we include the Aeolic and Doric dialects. After what we have just said with regard to the transition to the thematic conjugation, it is natural to suppose that all these shorter imperatives could be explained from the analogy of this conjugation. But we shall not find this sufficient. A form like e.g. ἵστη in Homer, κρήμνη in Euripides cannot possibly be explained, in accordance with the laws of Ionic contraction, as from *ἵσταε *κρήμναε, any more than the Doric ἐγκίκρα from *ἐγκίκραε, for here αε is contracted to η. Hence we divide all the forms which belong here into two classes; i.e. into apocopated and thematic forms.

a) Apocopated forms.

39. The loss of the syllable θι finds its analogies in various phenomena of the 1 and 3 sing. ind. and conj., which were mentioned on pp. 28 and 41. The Aeolians of Lesbos formed the 3 sing. by rejecting the personal ending: γέλαι, and the 2 sing. imper. in the same way: κέντη. The Aeolic forms of this kind are discussed by Ahrens Dial. Aeol. 140. The grammarians quote as Aeolic ἵστα and ἵστη, ἐμπίπλη, κέντη, μύρω, δίδω. Ahrens's wish to reject ἵστη, which is described as Aeolic in Et. Gud. 283, 40 and in Et. M. 348, 9, arises from a mistake. He is correct only so far, that ἵστη cannot be explained like ἵστᾱ from a mere rejection of the ending. By its η ἵστη in the case of the Dorians and Aeolians—for it is called Dorian too by Herodian ii. 209—is shown to be contracted. According to the Dorian and Aeolian contraction it might come from ἵσταε. Hence the identical forms in the different dialects are, remarkably enough, to be explained differently: the Dor. and Aeol. ἵστᾱ, and the Ion. ἵστη are apocopated, the Dor. and Aeol. ἵστη and Ion. ἵστᾱ are contracted.—From Aeolising poets we may quote δάμνα Sappho i. 3, κίνη Sappho Frag. 114 B[3], ὑμάρτη Theocr. 28, 3, φίλη 29, 20.—A Homeric form of this kind is presented by ἵστη Φ 313, which reappears in Eur. Suppl. 1230 and Ar. Eccl. 743 (καθίστη). We may add κρήμνη Eurip. (or rather, as Nauck conjectures, Eupolis) Frag. 918 (κρήμνη σεαυτὴν ἐκ μέσης ἀντηρίδος), πίμπρη Eur. Ion. 974, and ἐγκίκρα Sophron Fr. 2 (Ahrens Dor. 464). The isolated Attic imperative ἕξει (Ar. Nub. 633), omitted in our grammars, with which the Scholiast on this passage compares δίει and μέτει, is perhaps to be taken in the same way. For it seems to me better to assume an *εἰθι formed after the analogy of δίδωθι as the original form rather than an εἴω, unknown at any rate on Attic soil, and with which we could only compare the conjunctive εἴω in Sophron (Frag. 2 Ahrens). If εἶ as an imperative really originated from the thematic form, it would necessarily have been contracted from *εἶε, like δαῖ = δαῖε in Hesychius, and would completely correspond to the Lat. *i* (for *ei*: cp. *īmus*).

b) Thematic Forms.

Considering the general tendency of the primitive forms to pass into thematic forms, imperatives like δείκνυε (Hes. Opp. 502, Plato), ὄλλυε Archiloch. 27 (καί σφεας ὄλλυ' ὥσπερ ὀλλύεις,) ὄμνυε (Theocr. 27, 34) present nothing surprising. It is otherwise with ξύν-ιε, which we find in Theognis 1240 at the end of a pentameter. If we are not to correct this into ξυνίει, as Buttmann (Ausf. Gr. i.[2] 523) suggested, we must recognise here, not indeed the addition of a thematic vowel, but probably the transition of a radical ε into such a vowel. 40

We have clear cases of contraction from forms with an added vowel in τίθει, which is in general use from Homer (τίθει κράτος Α 509) onwards, ἵει (Φ 338, Eurip. El. 592, occurring also in compounds in Attic prose), δίδου, which is found from Herodotus iii. 140 onwards. We must add also those forms in which the simple vowel is only thus intelligible, as καθίστα (i. 202), πίμπλα (πίμπλᾱ σὺ μὲν ἐμοί Xenarch. Meineke Com. iii. 616), Dor. πίμπλη, Herodian i. 464, δαίνῡ i. 70, ὄμνῡ (Soph. Trach. 1185, Eurip.), στόρνῡ (Aristoph. Pax 844), στρώννῡ (Com. anonym. Meineke iv. 605). The most difficult form of all is the Pindaric δίδοι (Pind. Ol. i. 85; vi. 104; vii. 89; Nem. v. 50). It can only be understood in connexion with the Aeolic δίδοις and the Homeric διδοῖσθα, and points by its diphthong to a *διδοίω as an older by-form of *διδόω (cp. p. 238), which has arisen from a transference into the derivative conjugation. We might assume as the primitive form a *da-da-jā-mi, though this hardly has a parallel. Bopp's notion that δίδοι might have arisen by the loss of θ from δίδο-θι (Vgl. Gr. ii.[2] 290) breaks down upon the improbability of such a loss, for which the Greek language offers no analogy. Still less can we follow Bopp in explaining the origin of δείκνῡ in this way, and in actually tracing back ῡ to νι. Nor can we say, as I supposed in Tempora und Modi p. 21 (cp. Kühner Ausf. Gr. i.[2] p. 524) that 'in the lengthening of the vowel of ἵστη, δίδου, δαίνῡ we must recognise a trace of the original ending θι.' We do not now look upon 'compensatory lengthening' in this superficial way, and cannot allow that a lost syllable ever had the power of lengthening the preceding syllable. This brief mention of differing views will suffice.—With regard to the occurrence of many forms here noticed as contracted, we 41
may refer also to Cobet Mnemos. ix. p. 373 and von Bamberg in the Zeitschr. f. Gymnasialwesen xxviii. p. 27.

4) Regular forms of the thematic conjugation.

The ordinary second person of the imperative of the thematic conjugation has no personal ending. All languages, which have an imperative at all, agree in this. Compare

Skt. *bhara*	Zd. *bara*	Gr. φέρε	Lat. *fer*
„ *gakha*		„ βάσκε	

In spite of this Bopp (Vgl. Gr. ii.[2] 291) and Schleicher (Compend.[3] 654) assumed that here too there was originally the ending *-dhi* (Gr. θι), and that it was afterwards dropped, as in a part of the verbs in -μι. Delbrück pronounces against this view (Verbum p. 33) as follows: 'we never find a **bharadhi*, but only *bhara*. We cannot, I think, doubt

that in these words the simple present stem was used from the first with an imperative force.' And we can well imagine this, for just as an exclamation (*Ausruf*) even without any special sign in the vocative of the noun may become a call (*Anruf*), so the bare stem used as an address (*Zuruf*) may in the verb become a command. Inasmuch as the stem of thematic verbs, as we saw, does not at all differ originally from a noun-stem, sometimes, so far as the sounds are concerned, an imperative and a vocative do completely coincide: e.g. ἄγε=Skt. *aǧa* is only distinguished from the vocative ἀγέ by the accent, a distinction which vanishes in Sanskrit, where the vocative rejects an accent on the final syllable. As the present stems in *nu*=Gr. νυ are also in origin noun-stems, we might regard in the same way forms like the Skt. *çṛ-ṇu* hear (by the side of *çṛ-ṇu-hi*). However, for Greek and Latin we are not wholly without traces of a termination, afterwards lost, for the thematic forms here under consideration. We have, it is true, only a single instance of the kind well established for each of the two languages, for Greek ἄγες · ἄγε, φέρε in Hesych., for Latin *prospices*, *prospice* in Fest. p. 205. There
42 are also one or two doubtful instances. For the senseless ζατές · ζητεῖ in Hesych. Guyet, followed by Koen on Gregorius Corinth. p. 620 read ζατές · ζήτει; there is also ζόες · ζῇ for which perhaps we should write ζοές · ζῇ. From Latin we must also mention *perfines*, *perfringas*, quoted by Festus on the same page. Bergk in the Index Lectionum Marburg 1847–48 most decidedly regards the Latin glosses, which he looks upon as taken from the Carmen Saliare, as imperatives with personal endings. Corssen, who was formerly (i.² 286) of the same opinion, afterwards (ii.² 474) explains *prospices* and *perfines* as optative forms. But we cannot see from what sort of stems they are to come. For as forms of *prospicere* and *perfinĕre*, which is probably only another form of *perfindere*, they can only be futures. Besides, with this explanation we should have again to assume for *prospices* a by-form of the present **prospico* as well as *prospicio*, and we cannot see why the word, if that was its force, should not have been explained by *prospicias*. It seems to me that the Latin *prospices* and the Greek ἄγες lend each other mutual support. The Greek form is derived by Koen l. c. from *ἄγημι (cp. ἡγέομαι), and he supports by this his view of the gloss ζατές, to which ζοές must be added, if it is really to be taken as an imperative. However, we cannot see what is to be gained by the analogy of the conjugation in -μι. For an Aeolic present imperative to *ἄγημι would be *ἄγη not ἄγες; an imperative present in ς is just as unheard-of from verbs in -μι as from verbs in -ω. It seems hence much more probable to me that we have in both languages isolated relics of a formation of thematic verbs, which early became extinct. From a purely Greek standpoint we might be tempted to refer ἄγες to *ἄγε-θι, and to find herein a confirmation for the derivation of δό-ς from δό-θι, and for the assumption that thematic imperatives also were not originally without the termination. But ἄγε-ς can hardly be separated from *prospice-s*, and as in Latin the *s* cannot have come from an original *dh* (=Gr. θ), and hence the Latin *s* can only be regarded as representing the termination *-si*, we shall apply the same explanation to ἄγε-ς. The form belongs to the same category as the Vedic forms like *mā-si* measure, and others mentioned on p. 298,
43 only that the *i* has here been dropped without leaving any traces, just as in φής, ἵστης etc. and in the Doric λέγες=λέγεις. For we can hardly

be satisfied with the so-called 'false conjunctives,' as Delbrück calls the unaugmented preterites of the Vedic dialect, used with a modal force, in the entire absence of similar formations on European soil. ζατές, ζοές, if correctly reported, are Doric forms, which are related to the imperative ἄγες precisely as the Doric indicative ποιές is to λέγες (Ahrens Dor. 176). Perhaps ἄγες was also limited to the same dialect, and was thus an indicative used as an imperative.

Grammarians (especially E. M. 302, 36) mention as Syracusan the forms θίγον, λάβον, ἄνελον for θίγε etc. cp. Ahrens Dor. 304. The ν is probably here, as in the imperative of the sigmatic aorist only a meaningless nasal after-sound which had the duller vowel as its effect. We took a similar view on p. 67 of the personal endings -μεθεν and -μεθον by the side of -μεθα. We are excluded from supposing a confusion of the thematic with the sigmatic aorist by the fact that this confusion, of which we shall have to treat below, is not regarded as Syracusan at all.

Finally we may mention here a few more forms in which the thematic vowel suffers contraction with a preceding long vowel or diphthong. Here belongs λοῦ · λοῦσαι Ἀττικοί Hesych., where Mor. Schmidt alters λοῦσαι into λοῦε, for outside the imperative contracted forms like ἕλου, λοῦται, λοῦσθαι are common. We find also δαῖ, δαῖε, for which see Mor. Schmidt on Hesych. i. 453. He also conjectures that for χρῖ · χρίει we should read χρῖ · χρῖε. In Photius Lexicon, p. 348, 1 (ed. Porson) we read: παῦ · τὸ παῦσαι μονοσυλλάβως, from which W. Dindorf, Meineke, and Bergk in Aristoph. Equ. 821, for παῦ' οὗτοσί of the M.SS. read with Elmsley παῦ παῦ' οὗτος. Mor. Schmidt on Hesych. iv. 297 mentions also the form παῖ for παῖε, but I cannot find any authority for this. These forms, in which the thematic vowel coalesces with the preceding one are really not much more surprising than τίμᾱ or ζῇ (for *ζῇ-ε). To these belongs also the isolated Homeric imperative τῆ take, there! (Ξ 219, Ψ 618, κ 287), the plural of which τῆτε is given by Sophron (fr. 100 Ahrens). W. Dindorf Annot. ad Aeschylum (Oxon. 1841) p. 318 is bold enough 44
on the strength of these isolated instances actually to regard δίαιν for δίαινε as possible in Aeschylus, although this process is not an apocope so much as a rare kind of contraction, as we may see from the forms of λούω. The same scholar is still less justified in adding the dictum 'sponte intelligitur apocopen hanc ibi tantum locum habere, ubi idem verbum repetatur.' No authority says a word of this. Is the Latin apocope in *dic, duc, fac* limited to repetitions? From the established forms of this kind light is thrown back upon the contraction in ἵστᾱ ὄλλῡ etc.

5) Imperatives in τως.

Latin possesses two forms for the 2 sing. imper.; by the side of the usual form without any ending, it has that in *-to*, which is distinguished by a slight shade of meaning from the former. This *-to* is identical in form with the only ending of the 3 sing. imper. in Latin and Greek, and the same holds good of the Vedic ending *-tāt*. We have every reason to regard this *tāt* as the primary form, and its final *t* is still preserved in the third person in forms like the Oscan *líkítúd* and O. Lat. *estod* (Fest. p. 230). We may look upon the fact that the same ending appears in both persons as analogous to the case of the dual -τον (cp. p. 51 f.). Probably *tā-t* for the second person may be referred to an emphatically

reduplicated *-tva*. Forms of this kind are abundantly established by Delbrück (Verbum 38), especially for the second person, e.g. *vōkatāt* call, *vahatāt* carry, *bhavatāt* be. In Zeitschr. viii. 297 I called attention to the fact that the Greeks were not without a corresponding form, and Bergk de titulo Arcadico p. ix. tells us that the same idea had also occurred to him. The gloss of Hesychius *ἐλθέτως* · *ἀντὶ τοῦ ἐλθέ* Σαλαμινοί (read Σαλαμίνιοι) is at once explained, if we suppose that the final *t* here, just as in the ablative sing., changed into *ς*. I think I have since discovered a second instance of this formation, which had disappeared from literary usage, in the gloss *φατῶσαν* · *γνῶθι*, proposing in Studien iii. 188 to read without the alteration of a letter *φατῶς* · *ἀνάγνωθι*,
45 and supposing that *φατῶς*, in somewhat the same way as *λέγε*, was especially applied to the utterance of what was read. Possibly in the dialects which possessed these forms a distinction was made possible between the second and the third person, by the retention of the old dental in the form of *ς* in the former and its loss in the latter, a distinction maintained neither in Sanskrit nor in Latin. The somewhat surprising accent, if we may regard it as recorded accurately, may be compared with the tendency of single imperatives like *ἐλθέ*, *εἰπέ*, *λαβέ*, *ἰδέ* to become oxytone.

B) The Second Person of the Middle.

The termination of the second person of the middle and its conjectural origin were discussed on p. 59. The earliest demonstrable Greek ending is *-σο*, which here corresponds entirely to the Skt. *-sva*, whilst this ending is foreign to Sanskrit in the preterite and optative. Hence

bhara-sva and *φέρε-ο*, *φέρου*
saka-sva „ *ἕπε-ο*, *ἕπου*
saha-sva „ *ἕχε-ο*, *ἕχου*

correspond exactly in form and meaning. We also discussed above (l. c.) the conditions under which *-σο* has been preserved unaltered. Instances of *σο* retained in the case of verbs in *μι* are *ἄρνυ-σο* (frag. trag. adesp. 3 ed. Nauck), *ἐπίστα-σο* Aesch. Soph. Herod., *ἵστα-σο* from Hesiod onwards, and in compounds not unknown to prose, *ἔσσο* 'be' *α* 302, *γ* 200, and (quite late) *ἔσο* thence derived (cp. *πάρεσο* · *παραγενοῦ* Hesych.), *ἧσο* Γ 406, *κεῖσο* Φ 122, *ὕνησο τ* 68, *ἔμ-πλησο* Aristoph. Vesp. 603, *πρίασο* Ach. 870, *τίθεσο* Pax 1039.—*σοῦσο* · *ἔρχου*, *πορεύου* Hesych. (cp. Ahrens Dor. 352).

Forms, with the *σ* omitted, but without contraction, are common in Homer, as *δειδίσσεο* Δ 184, *εἴρεο α* 284, *ἔλπεο* Υ 201, *ἔρχεο* Ο 54, *θέο κ* 333, *λίσσεο*, *φείδεο*, *χώεο*, *μάρναο* Ο 475, *φάο σ* 171. Similar instances from elegiac and iambic poets are pointed out by Renner Stud. i. 2, 30. Pindar has *πίθεο* Pyth. i. 59, *ἀναβάλεο* Nem. vii. 77. There is abundant evidence in Herodotus for forms like *προσδέκεο* iii. 62, *ἀναπαύεο* v. 19.
46 The contraction of *εο* into *ευ* often occurs in Homer as in other Ionising poets and in Herodotus, by the side of the uncontracted forms : *βάλλευ μ* 218, *ὑπόθευ ο* 310, *ἔπευ* Ν 381, *ἔρχευ* Ζ 280, *εὔχευ* Ω 290, *ἴζευ* Γ 162, *πείθευ Ξ* 235—*ἀλέξευ* Archil. 66, 2, *ἐντρέπευ* Theogn. 400, *βάλευ* Theogn. 1050—*δέκευ* Pind. Ol. iv. 8—*τέρπευ* Herod. ii. 78, *ἀνέχευ* i. 206.—As the contraction of *εο* into *ευ* is not unknown to some branches of Dorism, there is nothing surprising in *κάθευ* in Callimachus h. V. 140.

We need give no instances of the Attic custom of contracting *εο* into *ου* in thematic verbs. As for the verbs without a thematic vowel, contraction made its way completely through the short aorist forms, e.g. *ἀφοῦ* Soph. O. R. 1521, *θοῦ* Soph. O. C. 466, *ἀνάσχου* Eurip. Ion 947, but it also very soon attacked the presents: *τίθου* Aesch. Eum. 226, though without consistency, so that in the comic poets even in the place of *κάθησυ*—apparently through an intermediate form **καθεσο*—*κάθου* intruded itself (Veitch, p. 307), and similarly *σοῦ* 'hurry' from the indic. *σοῦμαι* (Aristoph. Vesp. 209).—In non-thematic stems in *α* contraction also came to be usual: *ἵστω* Soph. Philoct. 893.

Another rare contraction within the word brings about *ει* from the union of an *ε* belonging to the stem with the thematic *e*. Thus *αἰδεῖο* from *αἰδέεο* Ω 503, *ι* 269, both times almost in the same formula (cp. *μυθεῖαι*, *νεῖαι*), and *νεῖο*, quoted by Veitch, p. 409, from Leonidas of Tarentum 70. In the same way from the primary form *ἀλάεο* by interior contraction came first **ἀλᾶο*, then *ἀλόω* (*ε* 377), for as the contraction of *εο* to *ου* is un-Homeric, *ἀλάου* as the intermediate form is out of the question.

A lightening of the word was more commonly effected by the rejection of an *ε*, that is, by means of hyphaeresis, for which I may now refer to the thorough investigation of Fritsch Stud. vi. p. 128. Forms like *ἀποαίρευ* A 275, *μίμεο* Simon. C. frag. 29 B^3, *ὑφάγεο* Theocr. ii. 101, *ἀκέο* Herod. iii. 40, *φοβέο* vii. 50, will suffice as examples.

Finally there remain two Homeric forms in which, according to the prevailing view, *-εο* is 'lengthened' to *-ειο*. It is needless to point out how utterly incredible it is that among a number of instances of the second person of the imperative formed in the same way, only two should suffer such an affection. Besides the more recent science of language shows 47
a lengthening of this kind to be extremely dubious. Nor is there any probability whatever that in these two isolated forms some very archaic character has been preserved, as Christ has conjectured (Griech. Lautlehre p. 195). He believes that the *ει* of *ἔρειο* (only in Λ 611) and *σπεῖο* (only in K 285) may be explained by compensatory lengthening from the primitive form in *a-sva* Gr. *ε-σϝο*. For the phonetic process we might quote the analogy of *εἴωθα*, which is for *ἐ-σϝωθα*. Only in this case the course probably was that from *ἐ-σϝωθα* came in the first place *ἐ-ϝϝωθα*, and then *εἴωθα*, while the personal ending *sva* in Greek at once passed into *-συ*, from which form we cannot arrive at an explanation of the *ει*. But *ἔρειο*, if we accent it *ἐρεῖο*, can be very well explained upon the analogy of *αἰδεῖο*. For taken as an imper. present, it is easily connected with *ἐρέωμαι* ρ 509, *ἐρέεσθαι* ζ 298, *ἐρέοντο* Θ 445. The second instance *σπεῖο* in K 285

σπεῖό μοι ὡς ὅτε πατρὶ ἄμ' ἕσπεο Τυδέϊ δίῳ

resists all further explanation. But I leave it undecided whether we are to assume a corruption of the reading (say from *ἕσπε' ἄμ'*) or that the poet of the Doloneia here, following a false analogy, coined this form.

C) Third Person Singular, Active and Middle.

t is justly regarded as generally admitted that the ending *-ω*, common from Homer onwards, has come from *τω-τ* and corresponds to

the Vedic ending *tā-t*. For the latter, which has also the evidence of Pānini, Delbrück (Verbum, p. 59) points out at least one certain instance, *gakkha-tāt* let him go, which would correspond to a Greek **βασκέ-τω*. From the Italian languages we have *faci-tud* C. I. L. no. 813 (=Osc. *fac-tud* Tab. Bant. 9) with *esto-d* in Festus p. 230, 13 (=Osc. *es-tud*) and also the Oscan forms *liki-tud*=Lat *liceto* (cippus Abellanus 36), *deiva-tud* iurato (Tab. Bant. 5), *ac-tud*=agito (ib. 15). Umbrian, like the later Latin agrees so far with the Greek, that it has also dropped the final consonant: *sub-ah-tu* (=*sub-igi-to*), *ē-tu* (=*i-to*), *fer-tu* (=*fer-to*).

48 Cp. Aufrecht and Kirchhoff Umbr. Sprachd. i. 142. With regard to the origin of this termination, the simplest course is to assume an emphatic repetition of the pronominal stem *ta*, which in the first instance was pronounced long: hence the primary form was *tā-ta*.

In the same way the middle ending *-σθω* doubtless arose from *-σθω-τ*, so that *σθω-τ* and *τω-τ* correspond, just as in the 2 plur. *σθε* and *τε*, as in the dual *σθον* and *τον*, *στων* and *των*. The sign of the middle voice is concealed in the *σθ*, for which we may refer to p. 68 f. I have discussed there the few dialectic differences with regard to the combination *σθ* (Locrian *χρήστω*, Cretan *ἀπωϝειπάθθω*).

D) Third Person Plural, Active and Middle.

Whilst for the singular of the third person all Greek dialects essentially agree, the variety of formation for the plural is tolerably great. For the active we can distinguish four, for the middle three different formations. There was in fact no little difficulty in denoting number and mood, and in the middle a reflex relation to the subject besides, and all this in the way of the imperative, in the termination alone. We may properly place first

1) The forms in *-ντω*.

These are abundantly established from Doric dialects (Ahrens 296) of different regions and times: Lacon. *δόντω*, Heracl. *ἀγγραψάντω* (Meister Stud. iv. 423), Delphic *παρεχόντω*, *ἐόντω*, *ἀποδόντω*, *παραμεινάντω* etc. (Berichte der k. sächs. Ges. der Wissensch. 1864 p. 227), and also from the inscription from Tegea (which Kirchhoff. Monatsb. Jan. 1870, has shown to be probably Laconian) *διαγνόντω*, and from the Arcadian inscription of Tegea: *ποέντω*, *ζαμιόντω*, *ἀγκαρυσσόντω*, *ἰναγόντω*, *διαγνόντω* (Gelbke, Stud. ii. 389). Then follow

2) The forms in *-ντων*.

These are the most widely extended. For they are

a) The only forms in use in Homer: *ἀγγελλόντων* Θ 517, *ἀγειρόντων* B 438, *φευγόντων* I 47, *πινόντων* α 340, *ἀντιοώντων* Ψ 643 etc.

b) New Ionic: *λεγόντων*, *ἐχόντων*, *πασχόντων* quoted by Kühner i. 528 from Herodotus (i. 89 etc.).

49 c) Attic, much more commonly than those in *-ετωσαν*: *κυρούντων* Aesch. Choeph. 714, *γελώντων καπιχαιρόντων* Soph. Aj. 961, *πεμπόντων* O. C. 455, *βοώντων* Aristoph. Ach. 186, *παραθέντων* Nub. 456, *ἀποδόντων*, *ὀμνύντων* Thuc. v. 18, *μετεχόντων* Plato Protag. 322 d, *δοκιμαζόντων* Xen. Mem. i. 4, 1, *ἐγγραφόντων*, *ὀφειλόντων*, law in Demosth. 43, 71.

d) Doric by the side of *-ντω*: *διδόντων*, *ἐχόντων*, *ἐπιόντων*, *θέντων*, established from inscriptions by Ahrens Dor. 296.

It will be seen that there is not the slightest reason for calling these forms Attic, as is often done. They are called so by the grammarians simply because the Atticists recommended them for practical purposes, as distinguished from the forms in *-τωσαν*, which were afterwards more common (Gregorius Corinth. § xcvii.).

3) Forms in *-ντον*

occur only on the Lesbian inscription C. I. 2166, where Boeckh reads *φερόντων*, *φυλασσόντων*, *καταγρέντων* (cp. *ἐπιμελέσθων*). The copies of the stone do not always agree, but in some instances all give *-ντον* (*φυλάσσοντον*), which is defended by Ahrens Aeol. p. 130. In Conze's Tit. 8, 2 l. 6, 8 (Reise auf Lesbos) also *-τείχοντον* and *-ντον* are to be regarded as traces of this formation, as Wald rightly maintains (Additamenta ad dialectum Lesbiorum et Thessalorum cognoscendam. Berol. 1871).

4) Forms in *-ντωσαν*

occur only in the isolated *ἐόντωσαν* (Anecd. Delph. ed. E. Curtius xiii. 15, xxix. 17, xxxix. 20).

5) Forms in *-των*.

Of these I know only two instances: *ἔστων* and *ἴτων*. *ἔστων* in Homer only *α* 273 *θεοὶ δ' ἐπὶ μάρτυροι ἔστων*, for in A 338 *τῶ δ' αὐτὼ μάρτυροι ἔστων* it may be 3 dual; but it is completely established in Plato Legg. 759 *οὗτοι δὲ ἔστων ἐξηγηταὶ διὰ βίου*, Rep. 502, Xenoph. Cyr. iv. 6, 10, in no. 32, 9 of the Delphic inscriptions published by Wescher and Foucart, and in the inscription from Chios in Cauer's Delect. Inscript. No. 133 l. 20; so that the *ἔστων* recorded once or twice in Archimedes, though regarded with suspicion by Ahrens Dor. 321 f., is certainly not to be tampered with.—*ἴτων* occurs only in Aesch. Eum. 32 *ἴτων πάλῳ λαχόντες, ὡς νομίζεται*. In both forms the *ν* alone has evidently the function of denoting the plural as distinguished from the singular. We 50
have an analogy in the Oscan form *eituns*, which occurs several times, if we take this, not, as was formerly the case, as 3 plur. indic., but with Sophus Bugge Ztschr. xxii. 390 as 3 plur. imperative.

6) Forms in *-τωσαν*.

From Thucydides[1] onwards these forms are used in Attic by the side of those in *-ντων*, and by degrees they supplanted the latter: *μαθέτωσαν* Thuc. i. 34, *φερέτωσαν* Plato Legg. 759, *παραλαμβανέτωσαν* Xenoph. Cyr. vii. 2, 14, (in a law) *μενέτωσαν* Demosth. 21, 94, *ἴτωσαν* Eurip. Iph. Taur. 1480, *ἔστωσαν* Ion 1131 (Dind. *ἐστία*). Cp. *περιμαξάτωσαν* Menander fr. 109.—Besides these *αἱρέτωσαν*, *ἔστωσαν*, *παραμεινάτωσαν*, *ποιησάτωσαν*, *λαβέτωσαν*, *παρεχέτωσαν* are established by Dorian inscriptions (Ahrens Dor. 296, Ber. d. k. sächs. Ges. d. Wissensch. 1864 p. 228).

If we turn from this statement of the facts to their explanation, all the forms evidently fall into two groups. In the first case the 3 plur.

[1] Cobet Nov. Lect., p. 327, corrects away forms in *-τωσαν* from pre-Macedonian prose-writers. But there are a large number of them.

is characterised by the *ντ* common to this person in the indicative also: *λυόντω*, *λύοντων*, *λύοντοι* (?), *λυόντωσαν*. The second group is formed from the 3 sing.: *ἴτων ἰ-ωσαν*. The comparison of Latin forms like *eunto*, *legunto* is of itself enough to leave no doubt that the former way is the older. As in the 3 sing. we traced the ending *-τω*=Lat. *-to* back to *τω-τ*=Lat. *to-d*, it is probable that *-ντω* also lost a final dental, so that we may give *-ntāt* as the conjectural primary form of the termination. Benfey 'On Plural Endings' p. 33 thinks he can quote one example of this termination in Sanskrit: *hajantāt* Naighaṇṭuka ii. 14. In this termination the plural is evidently denoted just as it is in the indicative, while the imperative is denoted as in the singular by the long *ā* and the repeated *t*.[2] Hence there is no difference of principle between the two numbers in their mode of formation. As to the forms
51 with an added *ν* and *σαν*, it is certainly the most natural thing to explain both elements from the analogy of other plural forms, supposing that the custom of pronouncing a final *ν* in a 3 plur. like *ἔλεγον*, *ἐβόων*, *ἐποίουν*, and a *σαν* in such as *ἔδοσαν*, *ἐποίησαν* produced a similar ending here also. This was doubtless most naturally suggested to those who spoke Attic; for the consciousness that *ντ* belonged to the plural could hardly have been clearly retained among them. Even the genitives of participles like *λεγόντων*, *ποιούντων*, from which the grammarians derive the imperatives, may have contributed to produce this result. This explanation is strongly confirmed by the evidently later second group, for in this the mark of the plural lies exclusively in the appended *ν* or *σαν*.

The middle forms are limited to four: **νσθω*, *σθω*, *σθων*, *σθωσαν*. The most remarkable, in which we can still recognise the effects of an interior plural *ν*, has come to light within the last few years, in a single instance, which is however four times repeated: it has been pointed out already in Stud. ii. p. 450 and above p. 69. The inscription on bronze, discovered at Tegea, and published by Eustratiades in the *Ἀρχαιολογικὴ ἐφημερίς*, *Περίοδος* B, *τεῦχος* IΓ (1869) p. 344 [cp. also Cauer, Delectus Inscriptionum p. 4] has been ascribed on good grounds by Kirchhoff (Monatsb. der Berl. Akad. 1870, p. 63) to the first half of the fifth century B.C., and assigned to the Laconian dialect. There we read on the second side—

εἰ μέν κα ζόη αὐτὸς ἀνελέσθω

i.e. if he, the depositor of the sum of money here in question (Xuthias), be alive, he is himself to recover the sum; then follow the conditions in case of his death:

αἰ δέ κα μὴ ζόη τοὶ υἱοὶ ἀνελόσθω τοὶ γνήσιοι

and again three times *ἀνελόσθω* after the plural subjects *ταὶ θυγατέρες*, *τοὶ νόθοι*, *τοὶ ἄσσιστα πόθικες* (?). Hence *ἀνελόσθω* is the plural to *ἀνελέσθω*. Now if we remember that the thematic vowel appears as *ο* only before nasals, and elsewhere as *ε*, we see that *ἀνελόσθω* is evidently for **ἀνελόνσθω*, and hence it is to *ἀνελέσθω* precisely as *λεγόντω* to *λεγέτω* or as *λέγονται* to *λέγεται*. It is the very termination of this form, which Ahrens Dor. 297 justly held that we ought to expect: 'in subjectivo'

[2] The repetition of the suffix comes out with especial clearness in the Umbrian forms *etuto*, *habetutu* (*habituto*), *stahituto*, *tusetutu* (*tursituto*), which in form approach the Latin *itote*, *habetote*, *statote*, *torretote*, but are *third* persons plural (Aufr. and Kirchh. i. 143).

—so Ahrens calls the middle—'e διδόσθω et κρινέσθω plurales formae 52
διδοῦνσθω et κρινόνσθω fieri debebant.' A remarkable confirmation by a later discovery of a form which had been merely inferred. After what has been said of the previously discussed forms in -ω, we shall have no hesitation in principle to assume here too the loss of a τ, and hence to assume a *ἑλό-νσθωτ, which is evidently for *ἑλό-ντ-τωτ. In this form the internal ν denotes the 3 plur. precisely as in λεγόντω. The middle element is expressed in the σθ, the imperative in the last two letters. On p. 64 we traced the ending -νται, e g. in λέγο-νται back to the three pronominal elements *n-ta-ti*; the termination -νσθωτ points to four: *n-t-ta-t(a)*. Hence the 3 plur. of the imperative possesses one such element more than the 3 plur. ind., just as the 3 sing. imper. λεγέ-σθωτ possesses one more than the 3 sing. indic. λέγε-ται for *λεγε-τα-τι. If however it seems to any one more probable that such a curious form should not be based upon a very ancient tradition from the freshest formative force of the Indo-Germanic language, but that it originated much later in the endeavour to mark the plural in the imperative middle also in a manner analogous to λέγονται as compared with λέγεται and ἐλέγοντο as compared with ἐλέγετο, I can make no objection to this view. In any case we must go back to an -ονσθω, for without the ν the analogy is a very weak one. On the other hand the final τ in this view may have been foreign to this form.

This unmistakeable Laconian form supplies us with a most welcome confirmation of a Heraclean form. On the first Heraclean table l. 127 we read: εἴ τινές κα μὴ πεφυτεύκωντι κατταν συνθήκαν, ἀγγραψάντω καὶ ἐπελάσθω τὰ ἐπιζάμια τὰ γεγραμμένα. As the neuter plural is joined to a plural verb on these tables, ἐπελάσθω can only be plural. Now it might be supposed that ἐπελάσθω was contracted from ἐπελαέσθω, and belonged to the second class of plural imperatives, which, like κρινέσθω and others to be discussed immediately, do not differ from the singular imperatives, but Ahrens Dor. 195 rightly saw that this would contradict the Dorian laws of contraction. For as the imperative of ὁράω in Epicharmus is ὅρη, and as the Heracleans contract ἐπιβάῃ into ἐπιβῇ (Meister Stud. iv. 394), we should certainly have expected *ἐπελήσθω. 53
On the other hand ἐπελάσθω is explained quite simply from *ἐπελαό-σθω, just like ᾶς from ᾶος, φιντία from φιντίαο. Meister is right in following this acute explanation, which Ahrens discovered without the help of the Laconian form.—Finally we have to take account of two Attic forms of the same kind, first established by Kirchhoff's excellent Inscriptiones Atticae Euclidis anno vetustiores. I owe the notice of them to Paul Cauer's kind communication. In no. 32 A 16 we have καὶ συναγόντων καὶ συνκληόντων τὰς θύρας τοῦ ὀπισθοδόμου καὶ συσσημαινόσθων [Kirchhoff appends a ? to the *o*] τοῖς τῶν τῆς Ἀθηνᾶς ταμίαις; and in 78, 5 [οἱ στ]ρατηγοὶ χρώσθω[ν]. We find also ἐπιμελόσθ[ων in C. I. A. ii. 92 l. 5. Evidently these forms mutually support one another.

The second form of the 3 plur. imper. middle is not distinguished from the 3 sing. It occurs only in four instances from a single not very ancient Corcyraean inscription C. I. Gr. no. 1845: διδόσθω, ἐκλογιζέσθω, κρινέσθω (l. 125 κρινέσθω ἕκαστοι) ἐνδανειζέσθω (Ahrens Dor. 297). Probably this formation rests upon a confusion with the 3 sing., from which it was no longer possible to distinguish the plural by a different vowel.

The third form in -σθων is from Homer onwards by far the most common: ἑπέσθων I 170, πιθέσθων I 167, ἑηριαάσθων Φ 467. Kühner i.

537 quotes instances from Herodotus, Sophocles, Aristophanes, Thucydides, Plato and Xenophon; and Ahrens Dor. 297 others from Dorian inscriptions of different countries (Ther. *πορενέσθων*, Cret. *ἧσθων*, *σταννέσθων*, Rhod. *ἀποδόσθων*). In Delphian inscriptions we find *ἐφελέσθων*, *ἀνθελέσθων* (Berichte etc. 1864, p. 228).

The fourth form in *-σθωσαν* is related to that in *-σθων* precisely as the active *-τωσαν* is to *-των*. The form is un-Homeric, and unknown also to Herodotus (Bredow de dial. Herod. 337) and apparently to the tragedians, but in Attic prose it is used by Thucydides (*ὠφελείσθωσαν* iii. 67), and it is not unknown to the Doric dialect: Cret (Dreros) *διασσάσθωσαν*, Corcyr. *ἀπολογιξάσθωσαν*, Ther. *πορεύσθωσαν*, and often in Archimedes. Cp. Ahrens. 297.

The third and fourth forms have evidently come from the singular by the addition of *ν* and *σαν* as plural signs, precisely in the same manner as was the case partly in the active.

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E) Dual Forms.

The second person of the dual of the imperative active and middle is tolerably common in Homer: *ἐφομαρτεῖτον καὶ σπεύδετον* Θ 191, *ἀποτίνετον* Θ 186, *ἔμβητον καὶ σφῶϊ, τιταίνετον* Ψ 403—*ἔρχεσθον* Α 322, *σίτου θ' ἅπτεσθον καὶ χαίρετον* δ 60, *μάχεσθον* Η 279, *φράζεσθον* Υ 115; and quoted also from Attic writers: *χαίρετον* Soph. O. C. 1437, *εἴπατον* Aristoph. Av. 107, Plato Euthyd. 294, *ἀκούετον* Aristoph. Plut. 76.

On the other hand Kontos in *Λόγιος Ἑρμῆς* i. 66 maintains that there is no other instance of an early date of the 3 dual imper. act. than *κομείτων* Θ 109 (*τούτω μὲν θεράποντε κομείτων*), where this is established as the reading of Aristarchus, and has good M.S authority. In the *Ὁμήρου ἐπιμερισμοί* (Cramer Anecd. Oxon. i. 397) we read '*σημειοῦνται ὡς προστακτικὸν ὑπάρχον τὸ κομείτων, ἀλλ' οὐδέποτε δυϊκῷ προστακτικῷ τρίτου προσώπου ἐχρήσατο Ὅμηρος.*' For in Α 338: *τὼ δ' αὐτὼ μάρτυροι ἔστων* need not be regarded as a dual. Besides this Kontos can only quote a 3 dual *διαφερέτων* from Maximus Tyrius 20, 1. Certainly this passage, as well as that from the Epimerismi, shows that the Greeks of a later date incorporated the forms in *-των* in their paradigms. There is a noteworthy passage of Suidas quoted by the same scholar: *ἔχετον ἀντὶ τοῦ ἐχέτωσαν, δυϊκῶς 'λέγετον τοῦτο Τιμαῖος καὶ Ἀντισθένης, ἔχετον δὲ καὶ Κλείταρχον αὐτοῖς νοοῦντα εἰς μίαν καὶ τὴν αὐτήν.*' It seems to me by no means proved that here, as has been more than once conjectured, we should write *ἐχέτων* and *λεγέτων*; we may rather appeal in support of this isolated *-τον* in the 3 dual imper. to the uncertainty in the use of the dual (cp. pp. 52 and 307) which is adequately explained by the rarity of the usage; indeed in the above-quoted verse of the Iliad some copyists actually wrote *κομείτην* by an error. Besides the doctrine of the grammarians is here too supported by the analogy of Sanskrit, which has for the 3 dual as distinguished from the second person the well-established termination *-tām*, e.g. *i-tām*=**i-των*, *pa-tām*, *sīda-tām*. Cp. Delbrück Verb. p. 61. But whilst with the Indians the termination of the imperative coincided with that of the preterite and the optative, a distinction of vowel was produced in Greek between *-την* and *-των*.

55 The 3 dual middle cannot be recognised, as it is identical with one form of the third person plural: *λυέσθων*. For everywhere a plural form can replace the dual form.

II. CONJUNCTIVE.

As we always start from the simplest and most transparent formations, it will be our first duty in the case of the conjunctive to examine those forms in which the principle of formation of this mood comes out quite clear and unconfused. These are those in which the pure root is lengthened by a short *a*-sound (ε or *o*), provided with the primary personal endings,[3] and employed conjunctivally. We have already repeatedly quoted

ἴ-ο-μεν by the side of ἴ-μεν

as an instance of this method of formation. In Vedic Sanskrit—for such forms are quite unknown to the post-Vedic language—there are according to Delbrück p. 193 only a few instances of the kind : e.g. from *han* 'kill.'.

conj. *han-a-ti* (= Zd. *jan-a-i-ti*) with ind. *han-ti* (= Zd. *jaiñ-ti*) :

from *as* 'be'

conj. *as-a-ti* (= Old Pers. *ah-a-tiy*, Zd. *añh-a-t*) be he
ind. *as-ti* he is (= O. Pers. *aç-tiy*, Zd. *aç-ti*).

Still the principle of formation is completely established by perfect and aorist forms which will occupy us further on, and also by the analogy of the Persian languages.

Hence the most primitive conjunctive is distinguished from the corresponding indicative in no other way than the thematic indicative from the primitive indicative. We may state this thus :

conj. *han-a-ti* : ind. *han-ti* ∷ ind. *bhar-a-ti* : ind. *bhar-ti*,

or, putting it otherwise, *bhara-ti* may be at the same time conjunctive and an indicative by-form of *bhar-ti*. On this fact is based the explana- 56
tion, which in 'Zur Chronologie'[2] (pp. 49 ff) I endeavoured to give of the origin of the conjunctive. It is highly probable that formations, which are completely alike in appearance, were also in substance and originally alike, or in other words, that the *a* (ε, *o*) of the thematic indicative, and the *a* of the primitive conjunctive at first served the same end. On p. 9 (cp. p. 138) we took the thematic vowel to be a stem-forming element, by which the nominal character of the stem was more sharply denoted. Hence if *bhara-ti* meant originally 'bearer he,' from this on the one hand the meaning 'he is a bearer' with the force 'he is engaged in bearing' and so the durative force of the indicative might be developed, and on the other hand the meaning 'he is destined to bear,' 'he is to bear,' i.e. the conjunctive application. The Greek language has preserved a not wholly insignificant number of such primitive forms, though only in its oldest phase, the Homeric dialect. All these forms were entirely misunderstood by the older grammarians, and were wrongly taken as conjunctives 'with a shortened mood-vowel.' Though this assumed shortening in the conjunctive of all moods which is elsewhere always inclined to lengthening, must have appeared to every thoughtful scholar an extremely dubious process, even

[3] Delbrück has proved with certainty that even beyond the sphere of Greek the conjunctive had at first only the primary personal endings, and that hence we cannot talk of a 'conjunctivus imperfecti,' as the Sanskrit grammarians have hitherto called the shorter forms. Cp. 'The Old-Indian Verb,' p. 192.

comparative philology only arrived by degrees at the correct view, because it was only by degrees that the forms of the Vedic dialect which bore on the question came to light. In Bopp (Vergl. Gr. § 716) Greek forms of the kind mentioned are not yet put in their right place. So dependent are we all upon the discovery of facts. A more correct view was given in my 'Tempora und Modi,' and afterwards by Schleicher Compend. § 289. Since then Westphal especially has done good service for the Greek conjunctive, and also Joh. Paech in his doctoral dissertation 'de vetere conjunctivi Graeci formatione' (Breslau 1861), which is evidently due to Westphal's suggestions.[4] Besides Herm. Stier in my
57 Studien ii. p. 125 ff. has thoroughly discussed various sides of the Homeric conjunctive formation. All Greek conjunctives may be best divided into three classes:

1) Those in which the mood-element remains as a short *a*-sound;

2) Those in which the sign of mood consists in the lengthening of an already existing *a*-sound:

3) Apparent exceptions to the first two methods of formation.

1) Conjunctives with a short *a*-sound inserted.

With regard to these forms comparative grammar finds itself in the most decided antagonism to the doctrine of the old grammarians, which has maintained itself with slight modifications up to our own time. The old grammarians, in their absolutely un-historic way of regarding the question, starting from the Attic dialect, were obliged to set down in the first place the first of the three recorded forms of the 1 plur. conj. aor. *θῶμεν*, *θέωμεν*, *θείομεν*, and to regard the other two as affections of this primitive form. In this respect the fragment of Herodian (ii. 267 ed. Lentz) is instructive. We see from this, that no fewer than three phonetic affections and one hypothetical intermediate form (*θείωμεν*) were necessary for this grammarian in order to get from his starting-point, the Attic *θῶμεν* to the Homeric *θείομεν*; viz. first *διαίρεσις*: *θῶμεν θέωμεν*, second *πλεονασμός*: *θέωμεν* **θείωμεν* (the latter form being merely an assumed one), third *συστολή*: *θείωμεν θείομεν*. The current modern grammar substitutes for the very dubious expression *πλεονασμός* extension or lengthening, and can get no further (cp. Buttmann i.[2] 516, La Roche homer. Untersuchungen p. 152 ff.). For comparative grammar, on the contrary, the third form is not only the earliest recorded, but also the most original, setting aside a slight modification, and the others are to
58 be explained from it. It needs no argument to show that the latter view, which starts from the oldest form recorded in Greek literature, and from the primitive form resulting from a comparison of this with the forms preserved in Sanskrit and Persian, is the only historical, and consequently the only scientific view. The old view was only possible by reason of the often-mentioned error that the poets 'metri causa' allowed themselves all conceivable Procrustean operations.

[4] The view expressed by Paech and repeated by Westphal, that I gave the true explanation only for the one form *ἴομεν* as compared with *ἶμεν*, has no justification. For on p. 246 of that work of mine *παρστήετον*, *δώομεν*, *θείομεν*, *δαμείετε*, and on p. 247 *βείομεν*, *στείομεν* are also mentioned. But I gladly admit that these scholars have essentially promoted our insight into the structure of the conjunctive, especially by a more correct explanation of the sigmatic aorist forms with a short vowel.

The Homeric poems offer the following eleven conjunctives with a short vowel from present and primitive aorist stems. Postponing for the present the difficult question as to the way of writing the vowel which precedes the mood-vowel, we will quote the forms in alphabetical order:

1) ἄλ-ε-ται conjunctive to ἆλ-το he leaped (cp. pp. 90, 130). The breathing is given differently in the two passages (Λ 192, 207) in which the form occurs. Herodian wrote ἄλ-ε-ται, as he wrote ἆλτο and ἄλμενος; good M.SS. have ἅλεται (cp. La Roche), which La Roche and Bekker rightly follow.

2) ἐπι-βήσ-ο-μεν ζ 262, κ 334, κατα-βήσ-ο-μεν Κ 97, with the variant βεί-ο-μεν to be discussed hereafter.

3) βλή-ε-ται ρ 472, conjunctive to βλῆτο (cp. p. 132), with the variant βλήσεται, which I mention only because the unfamiliar character of these old forms elsewhere too led the copyists into similar mistakes.

4) γνώ-ο-μεν π 304.

5) δώ-ο-μεν Η 299, 351, π 184.

6) ἐρεί-υ-μεν Α 62; cp. p. 213. The corresponding indicative must have been *ἔρη-μι.

7) θεί-ο-μεν Α 143, Ψ 244, 486, ν 364 κατα-θεί-ο-μεν φ 264, ἀπο-θεί-ο-μαι Σ 409, κατα-θεί-ο-μαι Χ 111, τ 17.

8) ἴ-ο-μεν with a short ι (e.g. ἀλλ' ἴομεν Ζ 526) 21 times, with a long ι (e.g. Β 440, Ι 625 at the beginning of a verse) 8 times according to Stier Stud. ii. 129.

9) κιχεί-ο-μεν Φ 128.

10) στή-ο-μεν (v. l. στεί-ο-μεν) Ο 297, παρ-στή-ε-τον σ 183 (v. l. στήσετον).

11) φθί-ε-ται Υ 173, φθι-ό-μεσθα Ξ 87.

To these must be added also

1) Two passive aorist forms: δαμή-ε-τε (M.SS. δαμεί-ε-τε) Η 72, 59 τραπεί-ο-μεν Γ 441, Ξ 314, θ 292, and perhaps νεμεσσηθεί-ο-μεν, which I. Bekker has adopted in Ω 53 (νεμεσσηθείομεν ἡμεῖς for the traditional νεμεσσηθῶμεν οἱ ἡμεῖς).

2) Two perfect forms, the common εἴδ-ο-μεν by the side of the indicative ἴδ-μεν and πεποίθ-ο-μεν κ 335 by ἐπέπιθμεν, to which we shall return when treating of the perfect.

3) The numerous conjunctives of sigmatic aorists, like ἐρύσσ-ο-μεν, ἀμείψ-ε-ται, which will require thorough discussion hereafter.

The whole group consists of forms in which the mood-vowel is not lengthened either by position or otherwise. For the 1 sing. we could not imagine a form *δω-ο-μι or anything of that kind, because the vowel in this personal form is always long, but for the second and third we might certainly expect *δω-εις *δω-ει coming from *δω-ε-σι *δω-ε-τι, and for the 3 plur. *δω-ου-σι proceeding from *δω-ο-ντι; but nothing of the sort occurs: instead of these we have forms like γνώ-ω, γνώ-ῃς, γνώ-ῃ, γνώ-ωσι. Perhaps the fault lies with the record. For as all such forms, if they were living at all, must have been already antiquated at the time of transcription into the new alphabet, we have no better authority for the correct reproduction of the sound of ΓΝΟΕΙΣ ΓΝΟΕΙ ΓΝΟΟΣΙ, ΘΕΕΙΣ ΔΑΜΕΕΙΣ than for that of ΠΕΟΣ. On the other hand the transition into the all-absorbing ο-conjugation by the addition of a thematic vowel to the root-vowel is established by numerous facts. I need only mention βάω, ἐλάω and other formations discussed on p. 148. Hence it is difficult to decide.

There are only two points still to be discussed: the quantity and the quality of the stem-vowel. The quantity offers no difficulty after what we have seen on p. 135. For if, as seemed probable to us there, the vowel of such aorists was originally long and only sometimes shortened, all forms are thus most simply explained. In δώ-ο-μεν, στή-ε-τον, θή-ῃς we see the original length retained, so that we cannot talk of any lengthening at all, any more than in γνώ-ῃς, γνώ-ωσι, or in βλή-ε-ται.
60 Some slight difficulty is presented by ἵ-ο-μεν, for no reason for the length is discoverable: we should therefore have to find this in the analogy of γνώ-ο-μεν, θεί-ο-μεν. But in this case, as we saw, the long vowel is the exception, the short one predominates. Besides it is an indisputable fact that, compared with the more fixed quantity of the hard vowels, ι is everywhere subject to much greater variations in respect of length and shortness.

The question as to the quality is much less easily settled. As the *o*-sound always appears as ω, the *i*-sound as ι, only α (η) and ε remain to be discussed. But in these the tradition varies most perplexingly between η and the diphthong ει. Untold quantities of dust have been stirred up around the forms belonging here, and the unlucky theory of lengthening combined with an over-hasty attempt to arrive at a general rule has cast more darkness than light upon this subject. Westphal, Method. Gr. i. 2, 286, was the first to view the case more correctly, without, however, making it quite clear. We must in this question deal at the same time with the forms with the short mood-vowel, and with those which, according to the analogy of the thematic conjugation, show a long vowel instead; and hence we must put θείομεν and θείω side by side with στήομεν and στήωσι. There is, however, by no means a large number of forms in question, but only 9 aorist and present stems and 5 passive stems altogether: viz.

1) The stems βλη, δαη, ἡ, ἑρη, θη, κιχη with an *e* in the stem.

2) The passive stems δαμη, μιγη, σαπη, τραπη, φανη, of which the same holds good.

3) The stems βη, στη, φθη, with an α in the root.

Here are altogether 14 stems.

The M.SS. give us no sure basis in this question, as even the best of them show the greatest fluctuations, but with a decided preference for the sound ει, and besides, as can be seen from the proofs in La Roche (Textkritik, 405 ff., Homer. Unters. 152 f.) fall into frequent confusions of conjunctive and optative forms (μιγήῃς, μιγείῃς, μιγείης). On the
61 other hand we have at least for a certain group of forms positive information as to the doctrine of Aristarchus, i.e. we know

1) That Aristarchus wrote φανήῃ (X 73), σαπήῃ (T 27), θήῃς (Z 432), as Didymus testifies at all three places (οὕτως Ἀ. διὰ τῶν δύο η);

2) That in Ψ 244 he read θείομεν according to Aristonicus 'ἡ διπλῆ ὅτι συνέσταλκεν τὸ θείωμεν' (cp. E. M. p. 727, 30);

3) That in P 95 he read περιστήωσ' according to Didymus ''Αρίσταρχος διὰ τοῦ η.'

Of these three decisions of Aristarchus modern scholarship has, strange to say, accepted the first two, but rejected the third, on the strength of a phonetic theory, which, as we shall see, is entirely arbitrary. This theory is stated in the following words by I. Bekker, Hom. Bl. i. p. 227, 'this same ε, if the verse requires that it should be long, passes before *o*

and ω into ει, before η into η.' La Roche, Hom. Unters. p. 152, blindly follows, adding much that has no bearing on the point. As the fundamental assumption of a lengthening of the stem-vowel is false, this is enough to make the whole theory collapse. But even without this insight into the genesis of the forms it is not hard to refute it. La Roche himself gives numerous exceptions to this asserted rule: e.g. Ὀδυσῆος, Ἀχιλῆος, Ἄρηος, πόληος. How can we speak of a disinclination to the combinations ηο, ηου, ηω in a dialect which gives us forms like νηός, νηόν, νηῶν, ἠοῦς, ἠοῖ, ἠῶ, δήομεν, αἰζηῶν, παιήονα in abundance? Even I. Bekker did not venture to meddle with forms like these, nor with participial forms like κεκαφηότα, κεκμηώς, τετιηότι, and fell into self-contradiction, when in spite of this, supported by Zenodotus, he advocated the reading τεθνειώς instead of the τεθνηώς of Aristarchus. Evidently Aristarchus knew nothing whatever of any such doctrine; in the other grammarians no trace of it is to be found; and scholars who lay especial stress upon the weight of tradition, ought least of all men to favour *a priori* such an invention. Hermann Stier, in the paper mentioned above, has justly expressed himself against this theory, but he might well have rejected it more decidedly.

As in our view the length of the stem-vowel is original, we shall, to begin with, gladly accept a good tradition, where such is to be 62
found. Hence we write with Aristarchus in P 95 περιστήωσ', which is formed precisely as γνώωσι, δώωσι, the latter also in Hesiod Theog. 222. In the same way we read also in O 297 στή-ο-μεν like γνώ-ο-μεν, δώ-ο-μεν. As no one disputes στή-ῃς P 30, στήῃ E 598, and παραστή-ε-τον σ 183, we here get the simple series:

	γνώ-ω
στή-ῃς	γνώ-ῃς
στή-ῃ	γνώ-ῃ
στή-ε-τον	
στή-ο-μεν	γνώ-ο-μεν
στή-ω-σι	γνώ-ω-σι

Hence it at once becomes probable that ἔ-βη-ν, which is quite parallel to ἔ-στη-ν, formed its conjunctive in the same way, i.e. βή-ω, not βεί-ω, though all M.SS have the latter in Z 113, the only passage in which the form is found, ὑπερβήῃ and ἐμβήῃ, as is commonly read in I 501, Π 94, κατα-βή-ο-μεν in K 97 with the best of all M.SS. the Venetus A, ἐπι-βή-ο-μεν ζ 262 with the codex H(arleianus), supported by the reading of the important codex M(arcianus) ἐπιβήσομεν, as La Roche gives it at this place, or ἐπιβήομεν with superscribed σο, as he quotes it in Hom. Unters. p. 151; and of course also φή-ῃ λ 128, ψ 275, and φθή-ῃ Π 861.

The case is somewhat different with the ε-stems. Still I do not see why we should not accept—against the opinion of Stier—Aristarchus's ἀν-ήῃ B 34, almost the only form which has authority, ἀφήῃ P 631, for which the M.SS. give a specimen collection of senseless readings (ἀφήει, ἀφείη etc.), μεθήῃ ε 471 in spite of the ει of the M.SS., θήῃς Z 432, Π 96, θήῃ κ 301, ο 51, for each of which there is some slight support, and in the same way δαμήῃς Γ 436, μιγήῃς ε 378, σαπήῃ T 27, φαινήῃ X 73. Copyists have everywhere a tendency to ει, but the more recent editors rightly follow Aristarchus. There is no dispute either about βλή-ε-ται ρ 472. Hesiod gives only the one form θείῃ Opp. 556, where ει is generally written. There remain still the 1 sing. and 1 plur.: for these the tradi-

63 tion only knows *ει*, hence *δαείω* K 425, *ἐφείω* A 567, *μεθείω* Γ 414, *κιχείω* A 26, *ἐρείομεν*, *θείομεν*, *κιχείομεν*, *τραπείομεν*. The diphthong could only be explained as the weakening of an *η*, for the older form doubtless had this vowel. But as we have seen how often this *ει* creeps in erroneously for an *η* which has other evidence in its favour, it is not too bold to assume that the diphthong in these eight forms only originated in the incorrect notion of the copyist, that *εῃ*, *εω* etc. were the normal forms, and that *ει* was to be regarded as the usual Ionic lengthening for *ε*. We made a similar conjecture on p. 103 for *εἵαται*, more correctly *ἧαται*. As soon as we write all forms with *η*, we have the strictest analogy between the stems in *o*, *a*, and *e*.

It follows from what we have said that there are very few cases of a real lengthening left. Two of these have been already mentioned, *ἴ-ο-μεν* (p. 314) and *φή-ῃς*. We are probably not wrong in seeing in the *η* of the indicative *φη-μί* the source of the length in the conjunctive. The third form of this kind is the entirely isolated *μετ-είω*, *ὄφρα ζωοῖσι μετείω* Ψ 47 (cp. X 388 *ζωοῖσιν μετέω*). Here too it is natural to employ the same principle of explanation as in *φή-ῃ*. Gottfr. Hermann thought he had discovered a 3 sing. *εἴῃ* or *ἴῃ* to this 1 sing. *εἴω* (Opusc. ii. 32). Hence in Ι 245 he wrote

ταῦτ' αἰνῶς δείδοικα κατὰ φρένα, μὴ οἱ ἀπειλὰς
ἐκτελέσωσι θεοί, ἡμῖν δὲ δὴ αἴσιμον εἴῃ.

(cp. ρ 586). The M.SS. however have the optative *εἴῃ*, and this can be easily explained. I. Bekker wavered between the two readings. In 1843 he wrote at both places *εἴῃ*, in 1858 *εἴη*, in 1861 (Hom. Blätter i. 228) he preferred *ἴῃ*. The more recent editors are doubtless right in retaining the optative.—A conjunctive, in which lengthening after the fashion of the singular indicative is unmistakeable, is furnished by *εἴω*=*ἴω* in Sophron. (fr. 2 Ahrens), quoted on p. 300 in comparison with the imper. *εἶ*. An altogether abnormal mood-form *στα-ί-ῃ* (*ἀνα-σταίῃ*, M.SS. *ἀνασταίη*) has been adopted in Pind. Pyth. iv. 155 (cp. Ahrens Dor. 133). Here it has been supposed that *α* was lengthened to *αι*, and the analogy of the similarly isolated Homeric *παραφθαίῃσι*, explained in another way on p. 40, has been pressed into the service. But the assumption is completely incredible. Could *ἀνα-στά-ῃ* (cp. Homer *στήῃ*) be the correct form?

64 2) Conjunctives in which a previously existing *a*-sound is lengthened.

The rule that the short thematic vowel of the indicative is lengthened in the conjunctive, is so well established from Homer onwards, that we need hardly give any instances. Conjunctive forms like *τύχωμι*, *ἀκούῃς*, *ἀρήγῃ*, *φεύγωμεν*, *παραισχύνητε*, *ἕλκωσι*, *φέρητον*—*ἄγωμαι*, *νέηαι*, *φέρηται*, *πειθώμεθα*, *ἕπησθε*, *πέλωνται*—*ἴδω*, *ἔλθῃς*, *λάβῃ*, *πάθωμεν*, *τάμητε*, *φάγωσι*—*λάθωμαι*, *λίπηται*, *γενώμεθα*, *πίθησθε*, *τράπωνται* are found by hundreds even in the Homeric poems. These forms follow exactly the same principle of formation as the corresponding forms in the Vedic dialect, so that e.g. the following Homeric conjunctive forms agree letter for letter with their Indian equivalents pointed out by Delbrück:

a-ǵā-ti = ἄγη-σι ζ 37, ἄγη H 335
vidā-si = ἴδη-ς (for ϝιδη-σι)
vidā-ti = ἴδη (for ϝιδη-τι)
bharā-ti = φέρη (for φερη-τι)
vōkā-ti = εἴπη (for ϝειπη-τι
(from *va-vakā-ti*) from ϝε-ϝεπη-τι).

In Zend the same rule holds good, so that e.g. *barā-ṭ* (with a secondary ending) is parallel to the quoted form *bharā-ti*=φέρη. A more complete agreement cannot be imagined, and hence the occurrence of this conjunctive formation for the earliest period in the life of language is put entirely out of doubt. I lay stress upon this fact, because we can see from it how extremely improbable it would be that, instead of the long vowel which characterises this mood, that which is especially opposed to the usage of the conjunctive, the short thematic vowel, should capriciously make its appearance. It was only the incompleteness of the material then accessible, especially in the case of Sanskrit, that could have led me to the view expressed in 'Tempora und Modi,' that the conjunctive was to a certain degree only an experimental mood, and that the long vowel might occasionally be shortened again.

The Italian languages show the same formation of the conjunctive. The long *a* of the Latin *ferās*, Old Lat. *ferāt*, *ferāmus*, *ferātis*, *audiāmus*, *doceāmus*, and similarly in the passive, are now, in opposition to earlier opinions to a different effect, generally recognised as identical with the same sound in Sanskrit and Zend. Of the same formation are Oscan 65
forms like *deicans*=Lat. *dicant* and Umbrian like *façia*=*faciat*. The interchange between *o* and *e*, in a manner corresponding to the indicative, is characteristic of Greek: by means of this with true Greek delicacy the originally existing parallelism between indicative and conjunctive is restored, while the contrast between *ferimus* and *feramus* does not allow us to recognise the original principle of formation so completely.

If we now ask what was the relation between this formation of the conjunctive and the primitive formation previously discussed, we can hardly content ourselves with the bare fact that the conjunctive was distinguished from the indicative in both instances by the addition of a short *a*. For it would be hard to conceive of the modal force of such an addition. For the primitive formation represented by ἴ-ο-μεν we thought (p. 311) we could discover a probable explanation in the assumption of a nominal stem. For thematic verbs such an explanation is impossible, for we can hardly suppose nominal stems with a long *a*. It rather seems that we have here merely a formation upon analogy, the linguistic instinct finding only a quantitative difference in the primitive forms after their origin had become obscure, and hence in the need of setting a conjunctive by the side of **bharati* (=φερε-τι) which had become fixed as an indicative, creating a **bharā-ti* which differed only in quantity. For *bharā-ti* : *bhară-ti* :: *as-a-ti* : *as-ti*. I will confess however that I am myself not quite contented with this explanation, and that a more satisfactory justification of this long vowel would be very welcome, if it could be discovered.

3) Exceptions and Variations.

Verbs without a thematic vowel show, with the exception of the previously quoted relics of a more primitive formation, the greatest ten-

dency to form their conjunctive after a thematic fashion. It is the same feature of the history of language as that of which we have learnt to recognise so many instances in the indicative. Just as on p. 169 we saw that from the suffix *-να* comes on the one hand *-νο* (*δάμ-να-μεν* but *κάμ-νο-μεν*), but on the other *-να-ο* (**δαμνά-ο-μεν*), so here too this twofold possibility presents itself,

a) treatment of the final vowel after the fashion of the thematic vowel: *δύνα-μαι* conj. *δύνωμαι*; and

66 b) addition of a thematic vowel, which in the conjunctive is naturally long: *φά-μεν*, conj. **φά-ω-μεν* contr. *φῶ-μεν*.

The method of formation denoted a) is limited to disyllabic stems, the final vowel of which could evidently the most easily pass into the analogy of the thematic conjugation. Two forms of this kind are found in Homer: *δύνηαι* Z 229 according to Herodian, while Tyrannion wrote *δυνῆαι*, and *κέρωνται* Δ 260. A third instance *ἐπίστηται* Π 243 is very doubtful. Aristarchus according to Aristonicus and Apollonius in the Lexicon took the form as an indicative with irregular lengthening. Zenodotus absurdly read *ἐπιστέαται*. The conjunctive can hardly be defended here, but certainly the *η* in the indicative is also extremely singular. *δίωνται* with the indic. *δίενται* would be taken in the same way, if the optative *δίοιτο* ρ 317 did not show that the verbal stem elsewhere too passed into the thematic conjugation. Hesiod Scut. 110 has the form *μαρνώμεσθ'*, the parallel to the optative *μαρνοίμεθα* λ 513. In Attic writers forms like *ἐπίστηται*, *δύνησθε*, *δύνωνται* are universally recognised as conjunctives; so too *πρίωμαι*. Here the conjunctive force attaches itself everywhere to the letters *η* and *ω* introduced from the thematic conjugation.

But there is one more rare method of formation of this mood, according to which other vowels also appear in the lengthened mood-syllable. Bergk de tit. Arcadico (Hal. 1861) p. xv deserves the credit of having first collected such formations. They are the following:

1) *δέᾱτοι* Arcad. conj., inscr. from Tegea (Fleckeisen's Jahrb. 1861, p. 587) line 19: *ὅσᾳ ἂν δέατοί σφεις ζαμίᾳ.*

2) *δυνάμαι* inscr. from Drerus (Gött. Nachr. 1855 p. 104) l. 41: *σπευσίω ὅτι κα δυνάμαι κακόν.*

3) *ἔρᾱται* Pind. Pyth. iv. 92: *ὄφρα τις . . ἔραται* (v. l. *ἐρᾶται*).

4) *ἴσᾱντι* C. I. no. 3053, l. 11 inscr. from Cnossus: *ὅπᾳ ὦν ἴσαντι* (v. l. *ἰσῶντι*) i.e. *ὅπως οὖν εἰδῶσι*; cp. Stud. i. 1, 246.

5) *καθίστᾱται* C. I. no. 2671 from Calymnia l. 42: *ὅπως μὴ διὰ ψάφου τῶν πραγμάτων κρινομένων εἰς πλείω ταραχὰν ὁ δᾶμος καθίσταται.*
ἐπισυνίσατοι inscr. from Tegea l. 19.

67 *παρίσταται* inscr. from Andania l. 72 (Sauppe *παριστᾶται*); *ἂν δὲ μὴ παρίσταται ἐπὶ δοκιμασίαν.*

6) *προτίθηντι* inscr. from Andania ed. Sauppe Gött. 1860 l. 89 *ὅσα κα οἱ θύοντες ποτὶ τᾷ κράνᾳ προτίθηντι* (Sauppe *προτιθῆντι*). Cp. l. 93 *ἀνατίθηται.*

7) *κατασκευάσθηντι* ib. l. 93 *ὅπως κατασκευάσθηντι* (Sauppe *-θῆντι*) *θησαυροί.*

8) *προγράφηντι* ib. l. 162 *ὃ ἂν προγράφηντι* (Sauppe *-φῆντι*).

The strangest of all the forms is *ἦνται*=*ὦσι* in the inscription from Andania l. 85 *ὅσοι κα ἦνται ἐκ τᾶς ἀμετέρας πόλεος*, for which Sauppe writes *ἦνται*. But the sense appears to require the former, and the form is equally strange in either case. It looks as if to *ἐντί*, which is several

times quoted as Doric (Ahrens p. 321) a middle *ἔνται was formed. To this ἔνται ἦνται as a conjunctive is related precisely as προτίθηνται is to προτίθεντι.

In several of these forms it is not impossible to assume a contraction, especially for δυνάμαι, ἴσαντι, in which ᾱ may be the Doric contraction from αο or αω, just as φᾶντι, ἐπιστᾶντι (Ahrens 312) are generally regarded as contracted. It is true that αε and αη are regularly contracted to η with the Dorians (Heracl. ἐπιβᾖ=ἐπιβάῃ), but as there are exceptions, to which belong e.g. Pindaric infinitives like νικᾶν, ὁρᾶν, σιγᾶν and the dative of the adjective ἀργάεις ἀργᾶντι, the possibility of explaining -στᾶτοι from *στάηται, δέᾶτοι from *δεα-ητοι is not entirely excluded. But it is more difficult to assume that forms in -ηντι have originated from contraction. There are absolutely no analogies for the contraction of ηω or even εω to η. At the utmost it would be possible, if we were to start from forms in -η-ο-ντι (cp. βή-ο-μεν), as is demanded by consistency with our discussions on p. 313, to get from *τιθη-ο-ντι to τίθη-ντι as from πλεῖον to πλεῖν, δεῖον to δεῖν (p. 210). The length of the vowel would be of the same nature as in φήῃς.

We must add further some conjunctives of present-stems in νυ, viz. ὅτε κεν—ζώννυνταί τε νέοι καὶ ἐπεντύνονται ἄεθλα ω 89, πολλαὶ δέ τε πεῦκαι αἴγειροί τε—ῥήγνυνται ὑπ' αὐτῶν Hes. Scut. 377 after ὡς ὅτε and a preceding πέσωσι, ὡς μή μοι χίμετλα ῥήγνῡται Hipponax fr. 19, 4 Be.[3] The 68
strange forms διασκεδάννυται and διασκεδάννυσι, which stand as conjunctives in Plato Phaed. p. 77 do not seem to be believed in now.

If we take a general view of the whole case, it seems to me that the assumption of a contraction in these forms is not very probable.

b) For the great majority of the conjunctives of unthematic verbs the mood-vowel is added on to the stem quite after the fashion of the thematic verbs, so that for the most part the former fall under the same rule as the latter. For the three persons of the singular in the active and the 3 plur. act. and mid. no other method of formation was at all possible but that represented by ἴ-ω, ἴῃς, ἴῃ, ἴ-ωσι. For the 2 plur. act. too there is no trace of a conceivable and pronounceable *ἴ-ε-τε, but only ἴ-η-τε. It is easily intelligible that by degrees other forms, possible in themselves, become assimilated to those with the long vowel, so that e.g. the ἴ-ο-μεν discussed on p. 311 only continues to exist as an archaism in Homer, and was everywhere else supplanted by ἴωμεν.

We can follow tolerably exactly the stages of the process by which the later rule by degrees completely thrust itself into the place of the earlier. In many instances the two vowels still stand side by side. A sufficient number of examples of forms with long vowels like γνώῃς, στήωσι have been already given above. By the side of these we find also those with the short stem-vowel[5] like ἀφ-έ-ῃ Π 590, κτέωμεν χ 216, φθέωμεν π 383, φθέωσι ω 437, and numerous instances from the root ἐς like ἔω A 119, ἔῃσι B 366. From Herodotus we may quote ἀπιέ-ωσι vii. 226, θέωσι iv. 71, ἐπιβέωμεν vii. 50, while by the side of these contracted forms are in abundant use. The Dorians too are not disinclined to the open forms e.g. ἀντι-πριά-η-ται Delph. 52, 10 edd. Wescher and Foucart, ἐγ-ϝηληθίωντι tab. Heracl. i. 152 and θέω is quoted more than once from the fragments of Sappho, thus ὄττινας γὰρ εὖ θέω Herodian ii. 267.

[5] Cp. La Roche, Grammatische Untersuchungen. Ztschr. f. d. österr. Gymn. Sept. 1874, p. 408.

In the case of some forms it is natural to derive them by 'transference of quantity' from the most primitive forms discussed on p. 312,
69 e.g. in *βέωμεν*, which may be related to the Homeric *βήο-μεν*, as *ἕως* is to the older form *ἦος*, *βασιλέως* to *βασιλῆος*. This explanation is most probable for the Homeric *ἔωμεν* T 402, if, with Buttmann Lexil. ii. 131, we refer it to the root *ἀ* satisfy (=Lat. *sa* in *sa-tur*, *sa-tis*). **ἀ-ο-μεν*, **ἠ-ο-μεν* would be a 1 plur. (from a lost **ἀ-μι*, **ἠ-μι*) of precisely the same formation as *βή-ο-μεν*, and by the same phonetic process we arrive at *ἔω-μεν*. But as there are certainly also forms in which the long mood-vowel is attached to the root, it is hardly possible to decide in any particular case, which was the course taken by language.

By far the most usual forms at all times were the contracted. For contraction we may even quote analogies of the Vedic language e.g. *dā-ti*=*δῷ-σι*, *dhā-ti*=*θῇ*, so that the Homeric *δώῃσι* surpasses such Sanskrit forms in antiquity.

Here too different possibilities again present themselves in particular cases. For instance, *γνῶμεν* may come from the primitive *γνώ-ο-μεν* just as well as from the later *γνώ-ω-μεν*, *ξυμβλῆται η* 204 from *ξυμβλήεται* and *ξυμβλήηται*, *θῆαι τ* 403 from *θήεαι* and *θήηαι*, *μεθῶμεν* K 449 from *μεθήομεν* and *μεθέωμεν*. The contracted forms are very numerous in Homer and Herodotus, and by degrees supplant the open forms almost entirely in all dialects. Compare *ᾖσι* O 359, *μεθιᾖσι* N 234, *κιχῇσι* (Bekker, La R. *κίχῃσι* as if from *κίχω*) *μ* 122, *βῶσι ξ* 86, *ἐπιβῆτον ψ* 52, *συνώμεθα* N 381, *πιμπλῆσι* (M.SS. *πίμπλησι*) Hes. Opp. 301, *θῆται* Herod. i. 29, *ἀντιστῇ* vii. 53, *ἀναβῇ* ii. 13, *ἐπιδιδῷ* ii. 13, *φᾶντι*=*φῶσι* tab. Heracl. i. 116, *παρατιθῇ* Epich. fr. 112, *διαγνῶντι* tab. Heracl. i. 153.

The case of the conjunctive of *κεῖμαι* is quite peculiar. In four lines of Homer *κεῖται* stands as a conjunctive, viz. T 32 *ἦνπερ γὰρ κεῖταί γε τελεσφόρον εἰς ἐνιαυτόν*, Ω 554 *ὄφρα κεν Ἕκτωρ κεῖται ἐνὶ κλισίῃσιν ἀκηδής*, *β* 102, *τ* 147 in the formula *αἵ κεν ἀτὴρ σπείρου· κεῖται*. The editors since Wolf have generally written *κῆται*, but the better M.SS. have almost always *κεῖται*, with the exception of Pap. Ω 554. Buttmann, Aus. Gr. i.[2] 545, seems to me to have seen the truth in rejecting the alteration and taking *κεῖται* as a conjunctive coinciding in form with the indicative. As a conjunctive *κεῖ-ται* has evidently arisen by contraction
70 from *κεί-ε-ται*, like *ξυμβλῆται* from *ξυμβλή-ε-ται*, or as *πλεῖν* from *πλεῖον*, *ζείδωρος* from *ζειόδωρος*, *λοῦ-ται* from *λούεται*. It is noteworthy that in this conjunctive the diphthong before the lengthened thematic vowel was not wholly extinct even in Attic times. In C. I. Gr. no. 102 l. 10 we read *παρ' ᾧ ἂν κείωνται*, and Veitch quotes *κέηται*, *διακέησθε* from the best Attic prose writers, and *προσκέωνται* from Hippocrates, while *κῆται*, which has been so confidently introduced into the Homeric text, is nowhere established beyond a doubt, and as a form surpassing the Attic dialect in its disfigurement it appears altogether unsuitable to that early time.[6]

We come now to a question much discussed, and answered in very different ways, that of the accentuation of a number of conjunctives of the conjugation in *-μι*. Ought we to write *τίθηται* or *τιθῆται*? From

[6] La Roche Ztschr. f. öst. Gymn. Sept. 1874, p. 412, defends *κῆται*, which is found at T 32, Ω 554 in A and, he says, at *τ* 147 in N, referring to *κέονται* X 510. — Hartel 'Homerische Studien' iii. 10, argues for *κείεται* with *ει* for the most part short.

the grammatical point of view the question shapes itself thus: is *τίθηται* formed according to a), i.e. upon the analogy of *δύνηται*, or according to b) i.e. upon the analogy of *ξυμβλῆται*? As with regard to accentuation we have no more trustworthy source than the old grammarians, we have to deal in the first place with their doctrine. Unfortunately they are by no means at one on the question. We have tolerably good information for the present-forms. We know from the scholion on Z 229 that *Ἀρίσταρχος καὶ οἱ ἄλλοι*, in opposition to Tyrannion, who actually wrote *δυνῆαι*, took such forms as proparoxytona, and from Herodian i. 462 that as distinguished from *δύνωμαι*, *ἐπίστωμαι*, *διδῶμαι*, *ἱστῶμαι* were regarded as regularly correct. Only those middle conjunctives, which had no active form, were accented as proparoxytona, the rest as properispomena. We cannot indeed discover any internal reason for this distinction, but perhaps the rule was nevertheless based upon the actual usage, and it gains a firm support from the fact that the same holds good for the optative. On the other hand the Anecdota Oxoniensia ii. 344, 28 and i. 469, 7 give us a canon for the aorists which Lentz similarly ascribes to his Herodian (i. 469, 7): *πᾶν ὑποτακτικὸν εἰς μαι λῆγον ἐπὶ δευτέρου μέσου* 71
ἀορίστου ἐν τῇ συνθέσει προπαροξύνεται οἷον θῶμαι ἀπόθωμαι καὶ διάθωμαι, σχῶμαι ἀπόσχωμαι. Hence e.g. in Λ 799 we must accentuate *ἀπόσχωνται*. We can again discover no reasonable ground for the different treatment of the two tenses. Any one who regards the doctrine of the ancients as the unerring standard of our accentuation, must therefore adopt this contradictory fashion. But the editors have rarely done this; they have generally preferred the contracted forms, so that e.g. *προσθῇ* is commonly written in Herod. vi. 109, on the strength of all the M.SS., *προῆται* in Demosth. 19, 118, *προῆσθε* in Thuc. i. 71, 4 by Bekker and Classen (Poppo *πρόησθε*) etc. Even the latest thorough discussions of these questions by Bellermann in the Ztschr. f. Gymnasialwesen xxiv. p. 331, though containing welcome and very abundant information as to the evidence of the M.SS., and by v. Bamberg ib. xxviii 28 ff., have not led to any important results. There remains finally only the fact in the history of language that from an ancient date there has been a wavering between the fuller contracted and the (so to speak) slighter forms, for which it is no longer possible to determine definitely the extent and the canon. The same question returns in the optative. But in this mood we have, at least, a certain fixed point in the supplanting of the earlier *ει* by the diphthong *οι*. For it is clear that by the change of vowel the passage into the *o*-conjugation was completed, so that we have still less reason to wonder at *πρόοιτο*, *ἐπίθοιντο*, than at *πρώνται*, *ἐπίθωνται*. For this reason *πρόσχοιντο*, with which we may also compare *πρόσχοιμι*, is the only accentuation for which there is authority. Now between the optative and the conjunctive undoubtedly there is an analogy, and this is the reason why *ἐπίσχωνται*, *πρόσχω* and the like are generally written, and we understand the view of the grammarian who in his rule gave the preference to this analogy.

Finally we must touch upon one more peculiarity of the thematic formation. We have repeatedly expressed ourselves in opposition to the assumption that the long thematic vowel, in which lies the distinctive mark of the conjunctive, can be occasionally shortened again. Such an assumption had a kind of probability only so long as the short vowel in forms like *ἴ-ο-μεν*, *εἶδ-ο-μεν* was not understood to be original, and that 72

in the sigmatic aorists, to which we shall return, could not be explained. After the disappearance of these apparent analogies, we shall hardly make up our minds to regard a short vowel in the place of a long one in the present-forms of thematic verbs as possible. In fact, in face of the enormous number of regular thematic conjunctives, there are only 9 forms which are suspected of having been abnormally shortened. Herm. Stier Stud. ii. 138 points out 8, to which we must add *κελεύομεν* in Ψ 659=802, a verse which Stier has probably intentionally passed over. Of these 9 forms, in the first place one, viz. *ἐρείομεν* A 62, has been quoted above (p. 313) as a regular formation on the analogy of verbs in *-μι*. The two conjunctives, which we find in immediate succession B 232 f.

ἵνα μίσγεαι ἐν φιλότητι
ἣν τ' αὐτὸς ἀπονόσφι κατίσχεαι

may, as Stier saw, be made regular by writing an *η*, *μίσγηαι*, *κατίσχηαι*. We find a shortened *η* in *βέβληαι* Λ 380. How easily might the copyists, misled by the false notion that the conjunctive admitted either quantity, make an error in transcribing the E! One apparent present-conjunctive may be taken as an aorist, viz. *δ* 672

ὡς ἂν ἐπισμυγερῶς ναυτίλλεται εἵνεκα πατρός,

whether we write *ναυτίλλεται* with Paech, or with Stier assume an Aeolic form like *ὀφέλλειεν* Π 651. The latter course is the simpler. It is different with the form *βούλεται* A 67

αἴ κέν πως ἀρνῶν κνίσης αἰγῶν τε τελείων
βούλεται ἀντιάσας ἡμῖν ἀπὸ λοιγὸν ἀμῦναι.

Westphal and Paech regard this as analogous to *ἄλ-ε-ται*, presupposing an indicative **βουλ-ται* corresponding to the Latin *vol-t*. But as the *ου* of this verb, as we saw on p. 172, came from compensatory lengthening, and presupposes a primitive form **βολ-νο-μαι* (cp. also Gust. Meyer 'Die mit Nasalen gebildeten Präsensstäamme' p. 46), the assumed *βουλ-μαι* vanishes. A present formed without the thematic vowel could at the utmost only appear as **βολ-μαι*. But there is not a trace of this to be
73 found anywhere in Greek. Hence I regard it as probable, that the true reading is *βούλητ' ἀντιάσας*, as Stier also suggests. The custom of *ἐκ πλήρους γράφειν* might easily give rise to the error.—Thus four forms are still left. Among them is Ξ 484

τῷ καί κέ τις εὔχεται ἀνὴρ
γνωτὸν ἐνὶ μεγάροισιν ἀρῆς ἀλκτῆρα λιπέσθαι,

where Gottfr. Hermann Opusc. iv. 41 regarded the conjunctive with *κε* as intolerable, and by an easy emendation, confirmed by one M.S., wrote *καί τέ τις*. Cp. La Roche ad loc. *εὔχεται* is here decidedly indicative. There is still less difficulty about Ψ 659=802.

ἄνδρε δύω περὶ τῶνδε κελεύομεν, ὥπερ ἄριστω
πὺξ μάλ' ἀνασχομένω πεπληγέμεν.

Here the paraphrase published by Bekker takes the form as indicative (*προστάσσομεν*) and there is nothing to prevent us from following it. In K 361

ὡς δ' ὅτε καρχαρόδοντε δύω κύνε, εἰδότε θήρης
ἢ κεμάδ' ἠὲ λαγωὸν ἐπείγετον ἐμμενὲς αἰεί

the only difficulty about the indicative arises from the fact that ὃ δέ τε προθέῃσι μεμηκώς follows. But Paech very properly reminds us of the reading recorded as that of Aristarchus.

χῶρον ἂν ὑλήεντα, ὃ δὲ προθέῃσι μ.

If by a slight emendation we write ὅ τε προθέῃσι, we get a relative clause with the conjunctive, introduced into a simile which has the indicative, a construction for which Paech justly compares N 62, ρ 518; the alternative which he offers, to take ἐπείγετον as the conjunctive from a form *ἐπειγ-μι, which is without any analogy, has nothing to recommend it.—Finally, we have still to discuss M 42

ὡς δ' ὅτ' ἂν ἔν τε κύνεσσι καὶ ἀνδράσι θηρητῆρσιν
κάπριος ἠὲ λέων στρέφεται σθένεϊ βλεμεαίνων.

Stier justly refuses to defend an indicative after ὅτ' ἄν by κ 410–12, where we ought rather to read with Bekker σκαίρωσι. But here too Paech has made a happy suggestion, writing for ὡς δ' ὅτ' ἄν by a slight change ὡς δ' ὅποτ' (cp. Λ 492). Thus all instances are easily set aside, and it is to be hoped that the 'shortened mood-vowel' has played out its part.

There remains however one irregularity to which the friends of 74 irregular shortenings might appeal. On Dorian inscriptions, especially on the Heraclean Tables and on inscriptions from Thera, but also on the Arcadian inscriptions from Tegea, a remarkable fluctuation appears in the 3 sing. conj., and we find sometimes the regular η, sometimes ει, sometimes η, e.g. κόπτῃ side by side with νέμει, φέρει and ἀμμισθωθῆ. The inscription from Andania published by Sauppe has no other active conjunctives but those with ει: θέλει, ἔχει, πέσει etc. and gives the peculiar middle conjunctive form συντελεῖται l. 39 as well as γίνηται l. 2. It will be sufficient with regard to this to refer to the thorough discussion by Ahrens Dor. 294, and to Meister Stud. iv. 390. I agree with the latter in taking ει to be a phonetic weakening from η, for which he well compares the later Attic βούλει for the earlier βούλῃ. That there is no question here of a confusion between the indicative and the conjunctive is shown most plainly by forms like εἶ=ἦ and λάβει which have no corresponding indicatives. For the form without ι I would assume, not as Westphal does (Method. Gr. i. 2, 62) a special form *φέρη-τ with an originally secondary personal ending, but a purely phonetic process, which, as Meister well explains, is confirmed by more than one example. Long before the irruption of itacism we notice in dialects which were not regulated by a local written language, as a kind of prelude to the later and more thorough changes of vowel, various dislocations among the long *e*-sounds, with which we may to a certain extent reckon ει. Apart from these 3 pers. sing., there is not the slightest trace of any uncertainty in the use of the conjunctive vowels among the Dorians, as is proved e.g. by Heraclean forms like πεφυτεύκωντι, ἀφομοιώσωντι, δέκωνται, and Messenian in the inscription from Andania like ὁμόσωντι, λάχωντι. Cretan expressions, which might be quoted against this, like ὃς δέ κα μὴ φυτεύσει, ὅτι δέ κα μὴ πραξόντι I take with Kleemann (reliqu. dial. Creticae Hal. 1872 p. 9) as future, like the Homeric: οἵ κέ με τιμήσουσι.

75 III. OPTATIVE.

If we compare an optative form like λέγο-ι-μεν with the corresponding indicative form λέγο-μεν, we are presented at once with the vowel *ι*, as the sign of the optative, just as the short *a*-vowel previously appeared as the sign of the conjunctive. But a further examination shows that language did not content itself with this vowel alone. If we compare λέγοι-μεν with λέγοι-ε-ν and δοί-η-ν, evidently a triple form of the mood-sign results: *ι ιε ιη*. In Sanskrit two of these three can be established with certainty. The verbs with a thematic vowel have, with the exception of the 1 sing., *i* as the sign, e.g.

bharē-ma i.e. *bhara-i-ma* = φέρο-ι-μεν,

on the other hand in the other main conjugation *jā* appears; e.g.

Ved. *jā-jā-m* from the rt. *jā* go
3 sing. *s-jā-t* for *as-jā-t* = Gr. *ἐ-ίη* for **ἐσ-ιη*.

Schleicher thought he could recognize the intermediate *ja* in the 1 sing. of the thematic verbs, e.g. *bharē-ja-m*. But Delbrück regards this form as a purely phonetic and specifically Indian modification of **bharē-m*, and hence assumes that from the *i* of the diphthong *ai* (Ind. *ē*) before *m* an *a*-sound was naturally developed. I must reserve my assent to this assumption, until there is some other confirmation of such a remarkable phonetic process. Another trace of this *ja* seems to be offered by the 3 plural. The Indian form *bharē-jus* is generally referred to **bharē-jant*, which exactly corresponds to the Gk. φέρο-ιεν=Zd. *bara-jen*. But it remains doubtful whether the *a* is a constituent of the personal termination, as in *ās-an(t)* = ἦσαν, or of the mood-element (cp. p. 49). Schleicher is inconsistent, on p. 699 dividing *s-j-us* for **sjant*, but on p. 703 assuming **ἐσ-jε-ν* as the earlier form of εἶεν. The remaining cognate languages give us, in their less known or less finely distinguished quantity, not more than two forms, or in part, only one, thus

O. Lat. *s-ie-m* for **es-ie-m* = *ἐ-ίη-ν*
by the side of *ferē-mus* for *fera-i-mus* = φέρο-ι-μεν
and similarly *ste-t*, *stē-mus* i.e. *sta-i-t*, *sta-i-mus*

76 unlike the Gk. στα-ίη. Gothic has in the 1 sing. pres. e.g. *b-aíra-u*, if this is rightly traced back to **baira-ju*, and in the preterite e.g. *bēr-ja-u*, *bēr-ei-s* etc. a trace of *ja*, while in the present elsewhere only *i* appears, e.g. *baira-i-ma*=φέρο-ι-μεν. In Slavonic and Lithuanian only *i* or even *ĭ* is recognisable as a relic of the mood-syllable.

With this mood-sign are united the secondary personal endings as a rule: and by the employment of these an analogy is formed between the optative and the preterite, which is especially important for the usage of the Greek moods. But it is very remarkable that it is in Greek, which retains the primary endings for the conjunctive more consistently than any other language, and which has worked out most delicately the distinction of meaning between the conjunctive and the optative, that we find a surprising exception, the 1 sing. of thematic verbs in *o-ι-μι*, e.g. φέρο-ι-μι. We discussed this case on p. 28, and there regarded the primary ending as an instance of high antiquity, as a relic of that earlier period in which the division of primary and secondary terminations had not yet

been fully established. On p. 31 we discussed the traces of the regular *ν* in *τρέφοιν*, *ἀμάρτοιν*. The completely isolated Homeric 3 sing. with a primary ending *παραφθαίησι* K 346 we thought on p. 40 we must regard as an aberration of the linguistic sense on the part of a later imitative poet.

As to the origin of the optative formation, comparative grammar has from the first been inclined to recognise a significant element in the syllable *jă*, which acts as forming the optative by the side of *i* and *jā*. The various attempts at a further explanation turn essentially upon two points in dispute, viz. first upon the origin of this syllable, and secondly upon the relation of the shorter form *i* to the longer. As to the origin, the relation of the optative to the future is of much importance for this. The future in *-sjā-mī*, e.g. *dā-sjā-mi* (3 sing. *dā-sj-a-ti*)= Dor. *δω-σίω* contains, as is generally admitted on the ground of the close connexion of meaning between the optative and the future, the same *ja* as that here discussed, only in composition with the rt. *as*. In other words *dā-s-jā-mi* comes from the rt. *da* and **as-jā-mi*, and this **as-jā-mi* takes its stand with its full personal ending by the side of **as-jā-m* the 77
primitive form of the optative of the rt. *as* be, which makes use of the secondary ending. This combination led me in my essay 'Zur Chronologie[2]' p. 59 ff., following the previous investigations of others, to the hypothesis that the optative syllable is essentially identical with the present expansion *ja*. Hence as we believed we could explain the conjunctive from a particular kind of the present indicative, so we see in another expanded indicative formation the source of the optative. Hence, according to this view, the modal application of certain verbal forms arose throughout from the temporal, especially from the denotation of what we call 'kind of time.'

Benfey (Göttingen 1871) has subjected the origin of the optative to a thorough investigation. I can agree with him in several negative contentions. Thus with Benfey I regard the hypothesis of Schleicher, that the *ja* of the optative is connected with the pronominal-stem *ja*, as unsatisfactory. For though Schleicher certainly had not in view the relative, and evidently later application of the stem *ja*, but probably only thought of a nominal stem-formation after the fashion of the present stems in *a*, *na*, *nu*, yet it is impossible to assent to such a view, so long as the meaning remains completely unexplained. On another point too I agree with Benfey: we cannot be satisfied, as Schleicher is, with the simple assumption of 'intensification' for the relation between *jă* and *jā*. For although sometimes elsewhere, e.g. for indicative forms like *φη-μί* by the side of *φα-μέν*, we cannot arrive at the ultimate reason for the difference of quantity, as we saw on p. 98, yet the case is different with this mood-syllable, inasmuch as it appears in its twofold quantity under much more manifold relations. On the other hand I cannot continue to follow Benfey's acute discussion, where he regards as the proper source of the optative formation the *preterite* of an *intensive* form of the rt. *i*, known only to Sanskrit, and defends this by laying special stress on the length of the *i* only recognisable in Sanskrit. We have seen repeatedly that the assumption of a preterite, originally not augmented, is quite arbitrary. Besides Benfey himself cannot deny that there are optative 78
forms with full personal endings, and is at one with me in holding that the primary *-mi* especially attached itself to the 1 sing. from the earliest

times. But how can we talk of preterite forms in the optative, if we do not find that even the secondary endings, which besides the augment are the only signs of the preterite, always cleave to the optative? The preterite ought therefore to be left wholly out of the question, and we ought to speak only of forms with full and with abbreviated personal endings, as we actually find duplicate forms of the kind side by side among the Indians. Just as little can I believe in an intensive formation as a component of the compound. Intensive formations are not very commonly used in any of the cognate languages. It is therefore a very bold presumption that an intensive of the rt. *i* was so familiar in the period before the separation of languages that it could become incorporated with a preceding verbal stem into the unity of a new form. Besides this formation would be manifested as such in many forms only by the length of the *i* (prim. *i*+*i*), a length of which no traces occur except in Sanskrit. The whole hypothesis is hence quite devoid of any firm basis. Again it is evidently in no way easier to arrive at the meaning of the optative from the intensive of *i* than from the root *i* or *ja* itself. An intensive of *i* must have meant 'to go eagerly after something,' 'to desire eagerly.' But such a meaning only suits the 1 sing. of the opt., where of course e.g. a hypothetic *dā-jā-m*=δο-ίη-ν (or *dā-jā-mi*) may be explained very well from the meaning 'I desire eagerly or strive to give.' On the other hand for the second and third persons we could not get from 'thou strivest to give,' 'he strives to give' either the optative meaning in the narrower sense 'mayest thou give,' 'may he give,' or the potential 'you will doubtless give,' 'he will doubtless give.' Hence if we do not wish to assume that the meaning of the mood first stamped itself upon the first person, and thence extended itself, to a certain extent abusively, to the others, we must give up the notion of looking for intensive forms in the elements of the optative.

It would be easier to get from the unstrengthened root of going to the
79 main functions of the optative through the intermediate conception of a tendency towards something. In this way the force of wishing would be given originally for the first person exclusively: 'I am going to give' in the sense of 'I am inclined to give;' for the second and third the force of the potential, which borders on the future: 'thou art going to give' (cp. French *tu vas donner*) i.e. 'thou wilt doubtless give,' 'he is going to give,' i.e. 'he will doubtless give.' We can also well understand how in a later period of the language, after the origin of the form, which had by this time become an actual modal form, had disappeared from consciousness, the distinction of the persons, which we have presupposed, also completely vanished, and the first person might be used with a potential force as much as the second and third with an optative force. However, even the Greeks of the historic time had the dualism of the modal function hovering before them, when they, partly under our very eyes, created a special exponent by means of the particle ἄν for the one main application, viz. the potential usage, and thus acquired the evident advantage of being able to distinguish rigorously in independent sentences between the potential and the strictly optative functions.

But there is another point to which due importance has not been given in earlier attempts to explain the optative. In giving in Chronol.[2]
59 the comparison

$$(a)s\text{-}ja\text{-}n(t) : as\text{-}a\text{-}nt(i) = svid\text{-}ja\text{-}nti : bhara\text{-}nti$$

I did not altogether overlook the difference of quantity in the *a* found in many forms, but I did not lay proper stress upon it. The present formation *-as-jā-mi* (Lat. *ero* for **esio*) which underlies the future ending *sjā-mi* (Gr. *-σίω*) agrees indeed in the 1 sing. with the optative *(a)s-jām* (=Lat. *siem* for **es-ie-m*), but this is to a certain extent, so far as the quantity is concerned, merely accidental. The 3 sing. is in the future ending **(a)s-ja-ti*, but in the optative *(a)s-jā-t*. The same distinction appears in most of the remaining personal forms. I have already mentioned that Benfey justly brings this distinction into greater prominence than his immediate predecessors. Benfey, following a casual suggestion of Bopp's (§ 715), conjectures that the long *a* in *(a)s-jā-t* is related to the short *a* in *(a)s-ja-ti* just as *bharā-ti* is to *bhara-ti*; in 80
other words that it betrays a conjunctive formation. If this combination is correct, there are properly in the optative two forms differing in principle, in the first place indicatives of the present formation in *ja* for the whole thematic conjugation, e.g. **bhara-ja-mi* (Skt. *bharē-ja-m*), and secondly conjunctives of the same formation for the conjugation without the thematic vowel, e.g. **da-jā-mi* (Skt. *dē-jām*, Gr. *δο-ίη-ν*). As it is indisputable that the meanings of the moods only gradually got marked off and not in the least in opposition to each other, we cannot be much surprised if formations of such a different origin came to coincide in force. For according to what seemed to us probable, under the head of the conjunctive, as to its origin, there was originally no greater difference between *bhar-ti*, he bears, and *bhara-ti*, (if) he bear, than between 'he bears' and 'he is a bearer.' Hence it seems to me not unreasonable to suppose that at the time when the optative began to form itself, the usage of language still wavered in its decision as to whether it should develope the new form from an indicative, or from the conjunctive which was not by any means sharply opposed to this, but which was already a distinct form. Thus we can explain the fact that relics of both methods of formation are preserved to us. Optative forms of the so-called second main conjugation in Sanskrit in fact cannot be distinguished phonetically from conjunctives of the so-called fourth class. E.g. *aç-jā-m* might just as well be a conjunctive with a secondary ending from an indicative *aç-jā-mi*, as an optative of the rt. *aç* without present expansion (which it really is): though in the forms from *a*-stems or the so-called first main conjugation phonetic modification prevents confusion with indicatives of the fourth class. Even in the period of the united life, in those roots, which employed no thematic vowel, the heavy form with the originally conjunctive *ā* established itself (*-jā-m*, *jā-s*, *jā-t* etc.); but in thematic formations, the stem of which was already weighty enough of itself, the lighter (*-ja-m*, **ja-s* (*i-s*), **ja-t* (*i-t*) etc.).

If this view is correct—though no one can fail to see how hard it is for us in all these questions to arrive at the ultimate facts —we get a glance into the gradual growth of the forms, and obtain this series: present expansion (*kind* of time)—conjunctive—optative, 81
the former developed from an earlier, the latter from another and later method of expansion, partly by the help of the earlier conjunctive. It is true that our view rests upon the assumption that for certain forms the mood-syllable was originally not *i* but *ja*, and that the third form of the mood element, the simple *i*, is weakened from *ja*. But the latter presumption has so many analogies in its favour that it will hardly

meet with any serious opposition, and if we can explain the syllable *-ja* in optative forms, without having recourse to the assumption of a purely phonetic expansion of the *a*, which is certainly not free from objections, such an explanation will, I think, deserve the preference.

We shall come back to the question of the relation of *ja* (ιε) to *i* in the consideration of some particular forms. Here I only wish to bring forward one more point, which seems to me not wholly unimportant. Delbrück in his 'Altindisches Verbum,' p. 195, points out that optative forms can be 'in part very rarely' quoted from the Veda. Evidently the conjunctive in this ancient record of Arian language is a *much* more common mood than the optative. Now if we were right in assuming that the latter only by degrees, so to say, separated itself from the indicative of the *i*- or *ja*-class, it is probable that this separation only brought about as its latest effect the formation of optatives with the mood-sign *ja* (*i*) from those stems, which had this syllable already as a present-expansion or a so-called class-sign. And hence it is noteworthy that forms of this kind, e.g. *paç-jē-s* i.e. **paç-ja-i-s* from a still earlier **pak-ja-ja-s* (videas), according to Delbrück, though they do occur, are very rare. Perhaps we may explain this fact by saying that in the time of the Vedas the last step in the path of separation had not yet been very long effected, and that therefore, in other words, the mood as such still showed signs of its origin from the tense. For a mood can only be regarded as completely established for the linguistic sense, when it can be formed from every tense-stem. The Indians seem as a rule never to have attained with full clearness to the consciousness of the difference
82 in principle between tense-forms and mood-forms, for they possess in their terminology no expression for mood whatever.

We now turn from these attempts to get an insight into the first establishment of the mood-forms, to the actually extant Greek optatives. The forms arrange themselves simply in three groups, the first containing those of the so-called verbs in *-μι*, the second those of the thematic verbs, and the third the deviations and the variations between the first and the second.

1) Optatives of the Verbs without a Thematic Vowel.

The mood-syllable has in the three persons of the singular the form *-ιη*=Skt. *jā*, Zd. *yā*, Lat. *iē*, while the *e* in the 3 plur., with the exception of the later formation in *-σαν* to be mentioned afterwards, is always short. Evidently *βαῖεν* as 3 plur. is related to *βαίην* as 1 sing. precisely as *ἐτίθεν* to *ἐτίθην*, Dor. *ἔφᾰν* to *ἔφᾱν*; and as we explained the short vowel in the preterite of the indicative by the influence of a double consonant once present, and forming position, we naturally do the same here. Zend offers the similar ending *jè-n*; Sanskrit has altered the *ā* (here too shortened) into *u* and *nt* to *s* (*-ju-s*). The agreement of Greek with Latin in the *e*-sound, as compared with the Indian *a*, deserves notice. The only form with *a* belonging here hitherto discovered in Greek is the 3 sing. *ἔα*=*εἴη* with the 3 pl. *συνέαν* (cp. *ἀποτίνοιαν*) on the old Elean *ϝράτρα* C. I. G. 11 [Cauer Del. Inscr. p. 135] with the Boeotian *παρεῖαν* (Keil Sylloge p. 14, 3, 4). But we must not fail to take into account also the so-called Aeolic forms of the sigmatic aorist, like *τίσεια*, *τίσειας*, *τίσειαν*, to which we shall return in a subsequent chapter.

Vedic forms, which entirely agree with Homeric forms, are

dē-jā-m = *δο-ίη-ν o* 449
dhē-jā-m = *θε-ίη-ν* E 215
ǵñē-jā-s = *γνο-ίη-ς* Γ 53
dhē-ju-s = *θε-ῖε-ν* Δ 363.

The *ē* of the root-syllable for an original *ā* rests upon a specially Indian phonetic affection. Compare further

(*a*)*s-jā-t* = *ε-ῖη* O. Lat. (*e*)*s-iē-t*
(*a*)*s-ju-s* = *εἶεν* (Zd. *qh-jè-n*) O. Lat. (*e*)*s-ie-nt*.

For the contraction of the radical *ν* with the mood-element *ι*, shown 83
in the Homeric *ἀναδύη ι* 377, *δύη υ* 286 *σ* 348, the Vedic *bhū-jā-ma* equivalent in formation to a Greek **φυ-ίη-μεν* is instructive. The Homeric form *ἰείη* T 209, at first sight a surprising one, of which we have the plural *περι-ιεῖεν* in C. I. G. 1688 l. 18, according to Boeckh's reading, has its counterpart in the Vedic 1 sing. *jā-jā-m*. *ἰε-ίη-ν* is regularly formed from the stem *ἰε*, which is to Skt. *jā* as *θε* to *dhā*. *ἰε=jā* is expanded from *ἰ*. Cp. p. 121. On the other hand the unmistakeably synonymous form *εἴην ξ* 496, Ω 139 is quite unparalleled.[7] Buttmann A. Gr. i.[2] 541 conjectured that the diphthong here rested upon a confusion between *ει* and *ī*. For **ἴη-ν=ἰ-ίη-ν* (cp. Skt. 1 plur. *i-jā-ma*) would be really the complete analogue of *δύην*. The mistake might have been occasioned by the *ει* of the indicative. But it is also conceivable that *εἴην* was only a variant for *ἰείην*, so that both would correspond to the above-mentioned Vedic *jā-jā-m*, the former with the loss, the latter with the vocalisation of the *j*.

Other Homeric forms of similar formation, in some cases retained also in later times, are *βα-ίη-ν* Ω 246, *ἐπι-βα-ῖε-ν* Θ 512, *στα-ίη α* 256, *τλα-ῖε-ν* P 490, *φα-ίη-ς* Γ 220, *φθα-ίη* N 815, *ἀφ-ε-ίη* Γ 317, *κιχε-ίη* B 188, *ἀλο-ίη-ν* or *ἀλῴην* X 253 (cp. *o* 300, where La Roche regards *ἢ κεν θάνατον φύγοι ἢ κεν ἀλώῃ* as possible [cp. Merry on *ξ* 183]).

For the first two persons of the plural the Homeric language has only forms without the *e*, like *φα-ῖ-μεν* B 81, *δο-ῖ-μεν* N 378, *διδο-ῖ-τε* λ 357, *ἀπο-δο-ῖ-τε χ* 61, *θε-ῖ-μεν μ* 347, *ἐπι-θε-ῖ-τε* Ω 264, *ε-ἶ-τε φ* 195, *ἐκδῦμεν* Π 99, and so in the passive aorists following the same rule *κοσ-μηθεῖμεν* B 126, *πειρηθεῖμεν π* 305, *διακριθεῖτε* Γ 102, *ω* 532. Duals of such optatives do not occur in Homer. There is a remarkable coincidence in the fact that in Old Latin also the fuller formation of the only verb, which has at all retained it, the verb substantive, is limited to the singular and the third person plural, while in the first two persons of this number we find only *ī* in the place of *ie*: thus

ε-ῖη-ν (for *ἐσ-ιη-ν*) = *s-ie-m* (for *es-ie-m*)
ε-ῖη-ς (,, *ἐσ-ιη-ς*) = *s-iē-s* (,, *es-iē-s*)
ε-ῖη (,, *ἐσ-ιη-τ*) = *s-ie-t* (,, *es-ie-t*) 84
ε-ῖε-ν (,, *ἐσ-ιε-ντ*) = *s-ie-nt* (,, *es-ie-nt*)

but

ε-ἶ-μεν = (*e*)*s-ī-mus*
ε-ἶ-τε = (*e*)*s-ī-tis*.

Cp. Neue Lat. Formenlehre ii.[2] 592 f.

[7] Haupt Opusc. iii. 341, defends the derivation from *εἶναι* be.

Differing in this from the usage of Homer and the Old Latin, the language of Herodotus and the Attic writers (cp. Kühner Ausf. Gr. i.[2] 543 f.) frequently gives fuller forms; but the shorter ones continued to be largely used side by side with them, and are regarded by the grammarians as better Attic. Thomas Magister (ed. Ritschl, p. 54) says *οἱ γὰρ Ἀττικοὶ ἐν πᾶσι πληθυντικοῖς τῶν εὐκτικῶν—παραληγομένοις τῷ η ἀποβάλλουσιν αὐτό, οἷον τυφθεῖμεν, ποιοῖμεν, βαῖμεν.* The addition *πλὴν φυλάττεσθαι δεῖ τὸ κακόφωνον, ἔνθα ἂν τύχῃ, ὡς ἐπὶ τοῦ βαῖτε καὶ σταῖτε καὶ τῶν ὁμοίων* deserves no serious consideration. Compare

ξυμβαίημεν Thuc. iv. 61	*ξυμβαῖμεν* Eurip. Phoen. 590
ἐμβαίημεν Xen. Anab. v. 6, 12	
δοίημεν Xen. Cyr. v. 3, 2	*δοῖμεν* Plat. Rep. x. 607 d
δοίητε „ „ iv. 5, 47	
Herod. vii. 135	
ἀφείητε Demosth. xix. 71	*ἀφεῖτε* Thuc. i. 139
γνοίημεν Plat. Legg. xi. p. 918	*ξυγγνοῖμεν* Soph. Antig. 926
θείημεν Plat. Protag. p. 343 e	*προσθεῖμεν* Plat. Men. 84
ἐνθείητε Dem. xviii. 324	*καταθεῖτε* Dem. xiv. 27
	τιθεῖμεν Plat. Rep. x. 605
φαίημεν Eur. Ion 943 (Dind. *ξυμφαῖμεν*)	*φαῖμεν* Plat. Phil. 63
φθαίητε Herod. vi. 108	(*φαῖτε* and the like are not found).

It is only from *εἰμί* that the forms without *η* are considered the rarer; still *εἶμεν* Eur. Hipp. 349, Plat. Theaet. 147, *εἴτην* the only dual form of this kind which I have been able to hunt up, Plat. Tim. 31 (*εἴητον* Plat. Euthyd. 273e), *εἶτε* Soph. Antig. 215 (M.SS. *ἦτε*), are the commonly received readings. The fuller post-Homeric forms agree with the Indo-Persian method of formation, thus e.g. *εἰήτην* with Ved. *(a)s-jā-tām*, *εἴητε* with *(a)s-jā-ta*, Zd. *qh-jā-ta*. However it seems to me very doubtful whether the fuller forms, recorded from a later time, rest upon
85 a primitive tradition: I incline rather to the conjecture that they owe their revival to the analogy with the singular forms.[8] The love of securing uniformity is always a main feature in later times.

Our view is further confirmed by the relation of the two forms of the third plural. The Homeric language has only one instance of the formation in *-ιη-σαν*, which most resembles the singular: *στα-ίη-σαν* P 733 (*παρασταῖεν* θ 218, *περισταῖεν* ν 50), while there are ten instances of the shorter form. In this case there can be no doubt as to the more recent character of the form, for, as we saw on p. 50, the termination *-σαν* is everywhere of later origin. It is only from Herodotus onwards that forms like *εἵησαν* Herod. i. 2, ii. 6, *φαίησαν* Thuc. viii. 53, *γνοίησαν* Demosth. xxxiii. 15 became by degrees somewhat more usual. Whether the particle *εἶεν*, so common in Attic, has really come from the 3 plur. opt. of *εἰμί*, as is frequently assumed, I do not undertake to determine. As the Attic writers especially connect the neuter plural with a singular verb, the plural, for the subject of which we could only supply *ταῦτα* or *αὐτά*, is surprising. We might also suggest a shortened *εἴη*, afterwards supplied with an appended nasal. But the question deserves further

[8] This is supported by the result, at which La Roche Ztschr. f. Oest. Gymn. Sept. 1874 p. 426 ff. arrives, that it was mainly the prose writers who brought the longer forms into more general use.

investigation, in which it would be necessary to take into consideration also the particle εἶα.

Finally in the middle the Greek language knows no duplicate forms. Everywhere ι alone assumes the function of denoting the optative: δο-ί-μην, φα-ῖ-ο, θε-ῖ-το, γνο-ῖ-το. In the Homeric δαινῦτο Ω 665 and the corresponding 3 pl. δαινύατ' σ 248 the ι (cp. δύη p. 329) has left the only trace of its existence in the length of the preceding ν. And here Greek again coincides with Sanskrit and Zend, where ī is the only sign of the optative in the middle, so that the Greek τιθεῖτο has the advantage over the corresponding Vedic *dadhīta* at least in the retention of the radical vowel.

After we have taken this rapid survey of the facts of the case, we are led on to the question of the historical relation of the shorter forms to the 86
longer ones. With regard to Greek, it is very rarely that any doubt is expressed upon the point. The old grammarians talk, as we saw, of an ἀποβολή of the η, for which Choeroboscus (Herodian ed. Lentz. ii. 824, 31) uses the expression συγκοπή. The accent also points to the priority of the longer form, for it is only thus that we can understand the difference between δίδοῖτε, δίδοῖτο and λάβοιτε, γένοιτο. We must not indeed deny that δίδοῖεν, which cannot in any case come from διδοίησαν, is also properispomenon. But here, as elsewhere, there is no difficulty in the assumption that analogy was an essential source of the accent. Among modern grammarians the view that the shorter forms are contracted has been the prevalent one. Ahrens 'Ueber die Conjugation auf MI' p. 15 was the first to set against it another, starting from the shorter forms, and regarding the η of the longer as 'strengthening.' But such an assumption is so entirely opposed to the conception which runs through the whole of the modern science of language, that it will hardly find any adherents. Benfey has disputed the contraction from another side. He lays great weight upon the fact that the sign of the optative in three languages, viz. in Sanskrit, Zend and Greek, consists for the middle in the simple ī, while for the active, at least over a wide range, it consists in *jā*, and that there is not a single trace of the full syllable *jā* in the middle in any one of these languages. The last-mentioned fact loses somewhat of its importance from the circumstance that in Zend we find at least one isolated form, quoted by Benfey himself, *daí-d-ya-ta* answering to a Greek *δι-δο-ιε-το, from which it is plain that at any rate the syllable *jă*, according to our view the earliest form of the mood-suffix, was not wholly foreign to the Arian middle. Now the middle terminations are throughout heavier than those of the active; and thus there was more inducement to contraction. Hence we can hardly be surprised to find that this process went on independently in the three families of speech. For we might venture to assume the shorter form even for the period of their common life. From the standpoint of the classical languages it would be a strange notion to derive δῶμεν, σταῖτε, διακρινθεῖμεν and Lat. *sīmus*, 87
sītis, *velīmus* from forms like δοίημεν, *siemus* etc., but to deny the like origin for δίδοῖτο, θεῖσθε. The optative forms like ἄγαιτο, ἐπίσταισθε, which are otherwise accented, will be discussed under 3).

2) Optatives of the Verbs with a Thematic Vowel.

The thematic vowel invariably combines with the modal ι to form the diphthong οι, which answers to the Sanskrit and Latin ē (=*aî*)

φέρο-ι-μεν, Skt. *bharē-ma*, Lat. *ferē-mus*,

for it is an established fact that the Latin futures characterised by the long ē are in origin optatives. Vedic forms, completely corresponding to Greek or Latin forms, are

2 sing. Skt. *paç-jē-s*	=	Lat. *spec-iē-s*
3 sing. *vidē-t*	=	Gr. *ϝίδοι*
2 dual *vōkētam*	=	Gr. *ϝείποιτον*

Zend supplies

2 sing. *apa-barôi-s*	=	ἀποφέροις Lat. *au-ferēs*
3 plur. *bara-yen*	=	φέρο-ιεν

We discussed on p. 328 the character of the vowel in the 3 plur. It is noteworthy that in Homer the regular form of the 3 plur. mid. is that in -οιατο: γενοίατο, τπερχοίατο, βιῷατο Λ 467, πειθοίατο, τοξαζοίατο, with the one exception of Α 344, where the harsh hiatus

ὅππως οἱ παρὰ νηυσὶ σόοι μαχέοιντο Ἀχαιοί

points to a corruption. Thiersch proposed μαχέονται. We should probably write with Struve and Ahrens μαχεοίατ'. The new Ionic follows the Homeric language: Herodotus has βουλοίατο, ἀγοίατο, ἀπικοίατο, ἀνιῷατο (iv. 130), μηχανῷατο (vi. 46). It appears at first sight probable that this α is the same as that which occurs, though with less consistency, and not after thematic vowels, in the indicative of the same dialects: Homer. βεβλήαται, κέαται, Herod. ἐπιστέαται, ἐκδιδόαται. In the active we find, from the group of forms here under consideration, only the three isolated dialectic forms quoted on p. 328 answering
88 to the α of the middle, along with the widely extended sigmatic or so-called Aeolic aorist-forms in -εια, -ειας, -ειαν (τίσειαν Α 42) also mentioned there, so that we can hardly refuse to recognise ια as one phase of the optative syllable *ja*, though a rare one. Thus the *e* of the Zend *bara-ye-n* also, and that of the common Greek φέρο-ιεν, can hardly be different. But by the side of -οιαν and -οιεν we find also a third termination: οι-ν, in which the vowel has entirely disappeared. There are frequent instances of a third person plural, in which the optative sign consists merely in ι, in the Delphic inscriptions: thus παρέχοιν (Anecd. Delphica ed. Ern. Curtius no. 12, 13, 31, Wescher-Foucart no. 32, 9; 33, 9; 38, 11 etc.) ποιέοιν W.-F. 24, 7, θέλοιν 43, 20. These same inscriptions give also παρέχοιεν and παρέχοισαν. In παρέχοιν we have certainly not to recognise an originally distinct method of formation, like ποιήσαι by the side of ποιήσειε, but a contracted form, which throws light again upon εἶμεν as compared with εἴημην and the like. Without noticing the Delphic forms I. Bekker Homer. Bl. 112 and 219 conjectured the termination -ιν for the 3 plur. in some passages of Homer and of Attic poets, especially ν 382

τοὺς ξείνους ἐν νηῒ πολυκλήιδι βαλόντες
ἐς Σικελοὺς πέμψωμεν, ὅθεν κέ τοι ἄξιον ἄλφοιν

where the M.SS. have the singular. Most recent editors have followed Bekker, for the singular in this connexion gives no sense. Bergk Poetae lyrici[3] p. 487, who calls ἄλφαιν (incorrectly as we have seen) a 'forma inaudita quam finxit I. B.,' attempts to get rid of the difficulty by striking out the preceding line as an 'imperita rhapsodi alicuius interpolatio.' The other passages are all not convincing, so that Bergk is right in saying that this form has but weak support in literature.

3) Fluctuations and Variations.

We have here to do in part with the same phenomena, which we learnt to recognise above p. 320 ff. in the conjunctive. But in the optative some points present themselves in a greater diversity of shapes, inasmuch as in the active there is a greater variety of endings. The fluctuations in the case of the optative are of two kinds. We find on 89
the one hand in verbs in *-μι* by-forms following the thematic rule, on the other hand, what is more surprising, in thematic verbs by-forms with the peculiarities of the verbs without thematic vowels: thus we have ἔοιμι as well as εἴην, and on the other hand ποιοίην as well as ποιοῖμι.

The manner in which the thematic method of formation gradually overgrew the other shows itself in two ways in the optative, just as it did in the conjunctive. Either the thematic *o* takes the place of the radical vowel, or it is suffixed to this vowel. Compare ἐπί-θοιντο and θεῖντο with ἴ-ο-ι and εἴη. The accentuation of the optatives of the first kind was discussed on p. 321, so that I need not return to it here. Among the optatives of this kind we find two of a peculiar character: ἰοίην and σχοίην. If we remember the Homeric form ἰείην, mentioned on p. 329, which approximates to the infinitive ἰέναι, it is very natural to bring ἰοίην into a special relation with this, giving the equation

ἰοίην : ἰείην = θοίμεθα : θείμεθα

and thus to regard the *o* not as suffixed, but as originating from the ε. I am not shaken in this view by the fact that διεξιοίην and the like cannot be quoted from any author earlier than Xenophon and Isocrates (v. 98; vi. 42). The form might have been long in use, and it might be by pure chance that it does not occur earlier in the extant texts. For on what analogy could ἴ-ο-ι-μι (if we are to derive it from a stem expanded by an *o*) become ἰοίην? We shall see immediately that this fuller form only makes its way into the thematic conjugation in a strictly limited circle of forms, in the case of which it admits of complete explanation. We have further the entirely isolated Homeric ἐπισχοίης Ξ 241

τῷ κεν ἐπισχοίης λιπαροὺς πόδας εἰλαπινάζων.

The Ven. A. has the reading ἐπισχοίες, the Palimps. Syr. ἐπισχοίας. From the scholium we see that Herodian read ἐπίσχοιες, an unexampled form, which he supposed he could explain either by the 'pleonasm' of the ε or from a shortening of the η. ἐπίσχοιας is quite as unprecedented: it might perhaps be compared with μείνειας and other so-called Aeolic forms of the sigmatic aorist, which we touched upon on p. 332. ἐπισχοίης, 90
the reading of Alexander of Cotyaea, finds support in the Attic σχοίην (Isocr. i. 45), σχοίη (Plat. Apol. 34 a), σχοίησαν (Hyperides pro Euxen. col. xlii. 19). Now if we remember that the aorist-stem σχε with its originally radical ε presupposes an early inflexion after the analogy of θε,

ἑ, and has actually retained σχές in the imperative, we may compare with the equation

ἰοίην : ἰείην = θοίμεθα : θείμεθα

the second

σχοίην : *σχείην = ἰοίην : ἰείην.

We may therefore say that *o* in σχοίην comes from ε in *σχείην just as ἔ-σχο-μεν presupposes *ἔ-σχε-μεν, and as παρά-σχε with a thematic ε presupposes παρά-σχε-ς with a radical ε. Whilst in the ending -ιη-ν a relic of the old method of formation is still preserved, in ὑπέρ-σχοι ξ 184, ἐνί-σποι Ξ 107, ἐπί-σποι β 250, in all middle forms developed from such stems, like ἀνασχοίμην λ 375, σχοίατο B 98, and in δίοιτο ρ 317 by the side of the indicative διέ-νται (cp. above p. 120) it has altogether disappeared. The corresponding forms from the roots ἑ and θε cannot be quoted from authors earlier than the Attic writers,[9] and even here there are considerable variations in the M.SS. between ει and οι, as also in accentuation, thus Plat. Gorg. 520 πρροῖτο, Dem. xviii. 254 προοῖντο (Westermann προεῖντο), ἀφίοιτε Plat. Apol. 20, κατάθοιτε vith the v. l. καταθεῖτε Dem. xiv. 27, πρόσθοιτο Dem. vi. 12 according to Voemel, ἐπιθοίμεθα with the v. l. ἐπιθείμεθα Thuc. vi. 34.[1] Here belongs also κάθημαι, the vowel of which, after the remembrance of an originally existing ς had become obscured, was treated like a final vowel. Forms like καθήμην, καθῆτο, καθήμεθα, which we ought perhaps to admit in Arist. Lys. 149, Ran. 919, Xen. Cyrop. v. 1, 8, according to the traces in the M.SS., change into καθοίμην (Plat. Theag. 130), καθοῖτο (also κάθοιτο), though Cobet Nov. Lect. 225 in his rigour will not allow these in Attic.

91 It is much less common for the primitive verbs to become thematic by the *addition* of a vowel. Here belong the Homeric forms ἔ-ο-ι-ς I 284, ἔ-ο-ι I 142, λ 838 and the quite isolated ἐνέοι Herod. vii. 6. The introduction of the vowel may have been facilitated by conjunctives like ἔω and the participle ἐών, the only form in use. The forms ἔοις and ἔοι find a support in the Latin *-sēs, -set* of *pos-sem, es-set* (for *ed-set*). Besides these I can only compare θέοιτο which appears occasionally in Herodotus (προσθέοιτο i. 53, ὑποθέοιτο vii. 237; on the other hand προθεῖτο iii. 148). For ἴοι (Ξ 21), according to what has been said above, is rather to be taken as moulded on ἰοίην for ἰείην, and is related to ἰοίην as ὑπέρσχοι (discussed above) is to ἐπισχοίην, though certainly the participle ἰών suggests the parallel with ἔοι, ἐών. These scanty traces of an added vowel make it extremely improbable that, as has often been assumed, in all the optatives of the verbs in μι with the sound οι the analogy of the contracted verbs was followed. The course of formation was not προσθεῖτο προσθέοιτο προσθοῖτο, but προσθεῖτο (and πρόσθειτο), προσθοῖτο (and πρόσθοιτο).

This view solves for us a riddle, otherwise hardly intelligible, in the fact (one which contravenes the whole course of the verbal structure), that the contracted verbs, as well as the contracted futures which are analogous to them, though undoubtedly thematic in their formation, yet deviate into the analogy of the non-thematic verbs. The older grammar regarded the so-called Attic forms like ποιοίην, τιμῴης as by no means

[9] ὑποτίθοιτο Herod. iii. 41 has weak authority: Stein writes ὑπετίθετο.

[1] The Cretan form συνέθοντο C. I. 2554, 2, which Ahrens regards as an err, points to a still wider extension of the thematic *o*.

surprising by-forms of the shorter like *ποιοῖμι*, *τιμῷρι*. But a little reflexion upon the course of the developement of the Greek verbal structure shows us at once that such forms are really quite as astonishing as an occasional **λεγέναι* by the side of *λέγειν* or *ἄγωμι* by the side of *ἄγω* would be. But it has been fully proved above p. 246 ff., that the contracted verbs, for which the Aeolians retained very extensively the analogy of the verbs in *μι*, show even outside this dialect unmistakeable traces of such inflexion, and that various phonetic phenomena point with certainty to a general extension of the Aeolic inflexion in earlier times. It is therefore *a priori* probable that this phenomenon also may be ranged with the others.

Before we discuss this any further, it will be necessary to point 92
out the actual facts as to the occurrence of these forms, for which collections have been made by Fischer ad Vellerum ii. 345, Matthiae i. § 198, 2, Kühner i. p. 544, Wecklein Curae epigraphicae 31, La Roche, Ztsch. f. ö. Gymn. Sept. 1874, p. 424 ff. In Homer there are only two instances: *φιλοίη* δ 692, and *φοροίη* ι 320, while optatives like *φθονέοιμι* λ 381, *καλέοι*, *ἐπιφθονέοις*, *ὁμοφρονέοις*, *νεικείοι*, *ἐῷμι* π 85, *ἐῷ* υ 12, *δρώοιμι* ο 317, *ἠβώοιμι* Η 157 are far more common. On the various forms of the verbs in *αω* in Homer Mangold Stud. vi. 208 ff. gives full information. The so-called Attic forms appear also here and there on Ionic inscriptions: thus C. I. 3044 *ἀπειθοίη*, *ἀνωθεοίη* (l. 51) by the side of *ποιοῖ* (l. 43); and in Herodotus, but here too still as rare exceptions; thus *ποιοίη* vi. 35 (v. l. *ποιοῖ*, *ποιέῃ*), *ἐνορῴη* i. 89 by the side of *ποιέοιμι* v. 106, *καλέοι* i. 11. From Hippocrates too a few instances are quoted. They occur, as isolated forms, among the Dorians, e.g. C. I. 2556, 47 *ἀδικοίη*, Epicharm. fragm. 33

τίς δέ κα λῴη γενέσθαι μὴ φθονούμενος φίλος;

where, according to the principle established by Hugo Weber in his paper on the particle *κα*, we must write *καν*. In the Argive treaty of alliance (Thuc. *v* 79) we find *δοκοίη*. On the other hand we have in Alcman p. 89 B.[3] *νικῷ*, in the Locrian inscription of Chaleion or Oeantheia l. 2 *συλῷ*, l. 4 *ἀδικοσυλῷ*, l. 6 *μεταϝοικέοι*, l. 8 *προξενέοι*, and on the Delphic inscription C. I. 1688 *ἐφιορκέοιμι* (cp. *ἐφιορκίοιμεν* in the Cretan inscription published by Bergmann l. 71). We see from this that the name 'Attic' for the fuller forms is only so far correct, that they become more common and almost the rule in Attic. For from the time of the tragedians the longer forms occur, and in prose they become in time much more common than the shorter ones. The following statement may make this plain:

Aesch. Suppl. 1064 *ἀποστεροίη*	Prom. 978 *νοσοῖμ' ἄν*
„ Ag. 1049 *ἀπειθοίης*	Soph. O. R. 1470 *δοκοῖμι*
Soph. Antig. 70 *δρῴης*	„ Phil. 895 *δρῷμι*
„ Trach. 902 *ἀντῴη*	
Eur. Hel. 1019 *ἀδικοίημεν* (v. l. *ἀδικοίην νιν*)	Aesch. Suppl. 1014 *εὐτυχοῖμεν* 93
„ Cyc. 132 *δρῴημεν* (Dind. *ξυνδρῷμεν*)	Soph. Phil. 1393 *δρῷμεν*
Arist. Vesp. 279 *ἀντιβολοίη*	Soph. Trach. 1235 *νοσοῖ*
„ Nub. 1255 *ζῴην*	
Thuc. ii. 5 *προχωροίη*, *δοκοίη*	Thuc. ii. 100 *δοκοῖ*
„ viii. 66 *σιγῴη*	Plat. Rep. vii. 516 a *καθορῷ*

Plato Crat. 391 *ἀγαπῴην*	Plato Rep. viii. 557 *ἀποροῖ*
„ Menex. 247 *νικῴητε*	„ Legg. ii. 664 *πηδῷ*
„ Gorg. 486 *ἱλιγγιῴης*	Theogn. 107 *ἀμῷς*
Isocr. vii. 50 *ἐπιτιμῴην*	
Dem. iv. 51 *νικῴη*	
Aesch. ii. 157 *μαστιγοίην* (v. l. *μαστιγοῖμι*)	Arist. Pax 1076 *ὑμεναιοῖ*
„ „ 102 *δοκοίησαν*	regularly *-ῷεν*, *-οῖεν*.[2]

To understand the longer forms we must start from the primitive forms of the contracted verbs, which recommended themselves to us on p. 248 as the most probable, viz. **φιλήη-μι*, **δουλώη-μι*, **νικάη-μι*. The original optatives were thus **φιληε-ίην*, **δουλωε-ίην*, **νικαε-ίη-ν*. These forms were variously modified. By contraction there came about the Aeolic forms *φιλείην*, for which there is good authority, as well as for *οἰκείην* (cp. Ahrens Aeol. 140), *δουλοίην*, *νικαίην*, the last two not being established by quotations, but presumable on analogy. On the other hand here, as in so many other forms, the very common *ο* made its way into the place of the *ε*: **φιληο-ίην*, **δουλωο-ίη-ν*, **νικᾶο-ίη-ν*, shortened into *φιλεοίην*, *δουλοοίην*, *νικᾶοίην*, and contracted into *φιλοίην*, *δουλοίην*, *νικῴην*. It is noteworthy how rare the examples of this formation without contraction are, like the above-mentioned Tean *ἀνωθεοίη*. This might suggest that *φιλοίην* arose in the same way from the Aeolic *φιλείην* as *σχοίην* from **σχείην*, and for the Homeric
94 *φυροίην* this view would find special confirmation in the Aeolic infinitive *φορῆναι*. But the optatives of the verbs in *-αω* with their *-ῴην* point without any qualification to *-αοιην*, and it is probable that the two other classes of contracted verbs went the same course.

The contracted verbs in *-εω* were followed by the contracted futures, which indeed in every respect are guided by their analogy. Thus *ἐροίην*, *φανοίην* and the like need no further explanation. The case is different with the optatives of the perfect like *πεποιθοίη*. We shall come back to these forms in dealing with the perfect. We may simply mention here that the vowel of the perfect-stem in *εἰδείην*, *δεδιείην* is treated exactly like a stem-vowel, so that here too no difficulty is presented by the method of explanation just set forth.

There is thus only one group of forms left, which is surprising, the Lesbian Aeolic optatives in *-οιην* or *-οην* from thematic aorists (Ahrens Aeol. 132). For these we have really two witnesses, the scholium on Ξ 241, mentioned above, in which there are quoted as analogies to the Homeric *ἐπισχοίης* from the work of Alexander of Cotyaea *περὶ παντοδαπῶν*, '*ἰοίην καὶ ἀγαγοίην παρὰ Σαπφοῖ*' and '*πεπαγοίην παρ' Εὐπόλιδι*,' and Etym. Magn. p. 558, 28 "*Εστι λάχοιμι, λάχοις, λάχοι· τοῦτο γίνεται κατὰ πλεονασμὸν τοῦ η Ἀττικῶς λαχοίη· εἶτα προσθέσει τοῦ ς λάχοιης· καὶ τροπῇ τοῦ ς εἰς ν, γίνεται τὸ πρῶτον· καὶ ἀποβολῇ Αἰολικῇ τοῦ ι λαχόην* (cp. Anecd. Oxon. ii. 204, Choeroboscus ii. 772). Hence the fragment of Sappho preserved by Apollon. de syntaxi 247 (fr. 9 B.[3]) is undoubtedly read correctly thus :

αἴθ' ἔγω, χρυσοστέφαν' Ἀφρόδιτα,
τόνδε τὸν πάλον λαχόην.

[2] Cobet Nov. Lect. p. 364 limits still further the use of the shorter forms, saying 'Tragicis licet *νοσοῖμι* et *δοκοῖμι* et similia dicere, populo et comicis et oratoribus non licet, sed *δοκοίην*, *νοσοίην* et similia sola in usu sunt.'

Of the two other forms the one has been already set aside by Ahrens Dor. 330. For it is very improbable that the Attic comedian Eupolis should have formed an otherwise unheard-of aorist *πέπαγον*, and much more probable that *πεπᾱγοίην* is to be taken as the optative of the perfect *πέπηγα* in a comic imitation of a Doric dialect. Meineke in the Addenda to the larger edition of the Comedians v. p. 10 to a certain extent admits this. Hence *πεπᾱγοίην* goes along with the above-mentioned *πεποιθοίην* and the like. Is it possible that *ἀγαγοίην*, which is also quoted from Sappho, is merely a copyist's error for *λαχοίην*? In 95
any case these aorists are quite isolated, and although in the case of the Aeolians, who formed optatives in *-ιην* from all derived verbs, it would not be quite impossible to imagine an extension of this analogy, we may still venture the conjecture that *λαχόην* is perhaps by no means identical with *λάχοιμι*, but is formed from a derived **λαχόω*, Aeol. **λάχωμι*, and is thus completely regular. For a derived **λαχόω* by the side of *λάχος* would be quite as conceivable as *θυόω*, *νεφόω* by the side of *θύος*, *νέφος*. The loss of *ι* has its analogies, as Ahrens has shown in § 16, in a widely extended uncertainty of the *ι* between vowels among the Aeolians, which points to a semi-vocalic pronunciation, and of which we found a trace in the Elean *ἔα=εἴη* on p. 328. For barytone verbs Ahrens Aeol. 133 quotes regular forms like *δαύοις*, *χαίροισθα* as at the same time Lesbian.

CHAPTER XV.

VERBAL NOUNS OF THE PRESENT AND SIMPLE AORIST STEM.

Of the forms of the two stems hitherto discussed there remain now only the infinitives and the participles, i.e. the formations which on p. 2 we described as verbal nouns. Though the more uniform extension of the participles through the various branches of the Indo-Germanic languages makes it hardly doubtful that the verbal adjectives or participles were fixed at an earlier date than the petrified case-forms of abstract substantives, which we call infinitives, we will still keep to the traditional order, and begin with the latter.

I. INFINITIVES.

In the formation of the infinitives we meet with a variety, which is quite surprising, when compared with the uniformity in the form of the
96 moods. Not merely do the different branches of the cognate languages show important differences in the form of the infinitive, as we shall have to explain further on, but even the Greek dialects, which elsewhere show hardly any but phonetic variations in the formation of the verbal forms, differ considerably in the formation of the active infinitive from the stems here mentioned and also from the perfect, while for the middle and, to notice this at the same time, for the sigmatic aorist, they offer us the usual spectacle of essential identity. We shall return further on to the significance of this remarkable difference, which hitherto has received but little attention; but our task for the present is to represent the variety as accurately as possible.

The various infinitive forms of the Greek language can be best arranged in five groups:

1) those in *-μεναι* and *-μεν*: e.g. *φάμεναι, ἐλθέμεν, τεθναμέναι.*

2) those in *-ναι*: e.g. *γνῶ-ναι, φά-ναι, γεγονέ-ναι.*

3) those in *-εν, -ην, -ειν*: e.g. Cret. *φέρεν*, Aeol. *εἶπην*, Homer. *θείειν, φυγέειν.*

4) those of the sigmatic aorist: *δεῖξαι, ἀμῦναι.*

5) those in *-σθαι* throughout the whole middle voice.

It is only the first three groups which need a more thorough discussion. What we are struck with at once is a very extraordinary variation, in the case of the primitive verbs, i.e. those which have no thematic vowel, between the first and the second group, in the case of the thematic formations between the first and the third group. In the language of Homer this variation reaches its height. We may see in this one of the many proofs of the unmistakeable fact that this language established itself in the mouth of epic singers under the crossing influences of different dialects. From the root *ἐς* there are five forms: *ἔμμεναι, ἔμεναι, ἔμμεν, ἔμεν*, and *εἶναι*, the last already the most

common. In the case of the derived verbs it is not uncommon to find three forms originating in the crossing of the Aeolic formation with the Ionic after the analogy of the conjugation in *-μι*: *φορή-μεναι, φορῆ-ναι, φορέ-ειν*, so that here the first three groups are represented in one and the same verb.

1) First Group: Infinitives in *-μεναι* and *-μεν*. 97

Between the longer and the shorter form there is this difference, that the former is decidedly more archaic, i.e. more usual in the Homeric dialect, but cannot be elsewhere proved to have been in use, except by a few traces in the Lesbian Aeolic dialect, and in the elegiac poets influenced by the Homeric language. As instances of the various present and aorist forms of the two chief conjugations, which belong here, we may quote *ἔμμεναι* A 117, *διεξίμεναι* Z 393, *παριστάμεναι* *η* 341, *ζευγνύμεναι* Γ 260, *κιχήμεναι* O 274—*καταβήμεναι* M 65, *ἀνστήμεναι* K 55, *δόμεναι* A 98, *θέμεναι* B 285, *γνώμεναι* B 349, *καταδύμεναι* Γ 241, *ἁλώμεναι* Φ 495—*ἀειδέμεναι* *θ* 73, *ἀρχέμεναι* Υ 154, *λιγέμεναι* I 257, *ποντοπορευέμεναι* *ε* 277—*εἰπέμεναι* H 375, *ἐλθέμεναι* A 151—*ὀνθέμεναι* i.e. *ἀνα-θέ-μεναι* and *ἔμμεναι* on the inscription from Cyme C. I. 3524 l. 53, 51, *ἀπυδόμεναι* on that from Mitylene 2166, 40; *ἔμμεναι* appears repeatedly on the Lesbian inscription discovered by Conze, and in Sappho fr. 136. For forms like *φυλασσέμεναι* in the Elegiac poets cp. Renner Stud. i. 2, 31.—The forms *εἴμεναι* as Megarian in Arist. Ach. 775, and *ἀλεξέμεναι* in the Spartan treaty Thuc. v. 77 are quite isolated, and Ahrens doubts both.

The infinitives in *-μεν* are formed by Homer less commonly from verbs in *-μι* than those in *-μεναι*: *ἔμμεν* Σ 364, *μεθιέμεν* Δ 351, *ἴμεν* A 170, *ὀρνύμεν* I 353—*δόμεν* Δ 379, *μεθέμεν* A 283, *ἐπιπροέμεν* Δ 94, *οὐτάμεν* E 132, *σχέμεν* Θ 254. Those from thematic verbs are more common: *ἀγέμεν* A 323, *ἀγορευέμεν* B 10, *ἀγαπαζέμεν* Ω 464, *ἰωκέμεν, καιέμεν, νιφέμεν, πολεμιζέμεν, σπευδέμεν, φερέμεν* — *εἰπέμεν* H 373, *ἐλθέμεν* Δ 247, *φαγέμεν* *κ* 386. On the other hand the Dorians have made the form in *-μεν* the regular one for non-thematic verbs (Ahr. Dor. 315). This form may be established as Cretan (*διδόμεν* C. I 3048), Laconian (*ἀποδόμεν* 1334), Heraclean (*ἦμεν* tab. Heracl. i. 75 etc.), Delphian (*εἶμεν* Wescher-Foucart i. 2, 7), Locrian (*ἐξεῖμεν* Stud. ii. 453, l. 3, 8), Corcyraean (*ἀναθέμεν* C. I. 1841), and Syracusan (*προδιδόμεν* Epich. fr. 71, Ahrens), and is abundantly represented in Pindar by the side of the rare Ionic form *δοῦναι* (*τιθέμεν* Pyth. i. 40, *στᾶμεν* Pyth. iv. 2): cp. G. A. Peter de dial. Pindari p. 63. The few instances of the kind in the Attic drama are discussed by Gerth Stud. i. 2, 257. The 98
Aeolians are much less consistent. We have indeed Boeot. *εἶμεν*=*εἶναι* C. I. 1562, 63, *καρτερῆμεν* Athen. x. p. 417 b, and Thessalian *δόμεν* (Ahrens Dor. p. 529, l. 12), but the Lesbian Aeolians always said *ἐπαίνην* (and *αἴνημι*), *ἄντλην, νίκαν, ὄμνυν* (Conze): we also find in Conze xii. C. l. 12, *πάρην*=*παρεῖναι* (from *παρίημι*: *αἱ δεῖ πάρην αὔτοις τὰς δίκας*), which modifies the rule of Ahrens Aeol. 315, that monosyllabic stems always had the ending *-μεναι*. There are further the Arcadian forms *ἦναι, ἀπειθῆναι, κατυφρονῆναι* (Michaelis in Fleckeisen's Jahrb. 1861, p. 594), which are of importance in forming our judgment on the Homeric dialect. Evidently the same variety prevailed among the Aeolians as with Homer. For there is an agreement also in the fact

that at any rate with the Boeotians and Thessalians there are infinitives in *-μεν* from thematic verbs. Boeot. *φαγέμεν* (Ahrens Dor. 523), *κριδδέμεν* Strattis in a Boeotian passage (Ahrens Aeol. 210), *φερέμεν* (Recueil d'inscriptions de Béotie par Decharme, no. xxv), Thessal. *ὑπαρχέμεν*, *ἐγγραφέμεν* (Ahrens Dor. p. 529, l. 20, 27), all forms which have their parallels only in Homer.

There are still a few peculiarities to be discussed. For Homer Bekker (Homer. Bl. i. 69) has discovered the law that 'the language of Homer knows no infinitive in *-μεν*, in which the penultimate has a double consonant or a long vowel:' hence while we find *γνώμεναι*, there is no **γνῶμεν*, no **στῆμεν*, **δῦμεν*, **φορῆμεν*, and none from passive stems like **δαμῆμεν*, **δοθῆμεν*, though forms of this kind are common among the Dorians. To the Aeolians, however, such forms seem to be quite as unknown as to Homer. Length by position appears in *ἔμμεν*, which occurs five times in Homer (Σ 364, ξ 334, π 419, τ 289, χ 210) with the variants *ἔμμεν'* and *εἶναι*, and also in *ἴδμεν* (Λ 719).—Three Homeric infinitives have a surprising long vowel before the endings *-μεναι* or *-μεν*, *τιθήμεναι* Ψ 83, 247, *ἴμεναι* Υ 365, and *ζευγνῦμεν* Π 145, which violates the rule just given. Of these *τιθήμεναι* has been left unassailed, for it is evidently formed upon the analogy of *καλήμεναι* Κ 125, *κιχήμεναι* Ο 274. For *ἴμεναι*, however, G. Hermann Opusc. i. 242 has proposed *ἴμμεναι*, supported by an unintelligible passage in the
99 Et. M. p. 467, 20, for *ζευγνῦμεν ζευγνύμμεν* which has no support whatever. I. Bekker (Hom. Bl. i. 69) approves of both, but has only admitted the former into his text. The model from which this suggestion is derived is *ἀρόμμεναι* Hes. Op. 22, where the reading is by no means certain, so that we ought perhaps to write simply *ἀρώμεναι*, a form with an Aeolic colouring after the pattern of the Homeric *φορήμεναι* (cp. *ἀλώμεναι*). For the two Homeric verbs we must conjecturally assume a transition to the analogy of the thematic verbs; i.e. *ἴμεναι* is contracted from **ἰέμεναι* (cp. *ἰών*, *ἴοιμι*), *ζευγνῦμεν* from **ζευγνύμεν* (cp. *ζεύγνυον* Τ 393). If anyone finds this assumption over-bold, he may remember that *ζεύγνυμι* and *ὄρνυμι* are the only two verbs in *-μι* which form an infinitive in Homer. The view that syllables naturally short can become long, by what is supposed to be the easier road of the doubling of the consonant, rests upon a false application of the irregularities occurring with the augment, discussed on p. 78.—I. Bekker (Hom. Bl. i. 147) shows that the forms in *-ήμεναι* as well as those in *-έμεν* were favoured by the preference for a dactylic ending at the close of the fourth foot.

The most curious of all infinitives are those in *-μειν*, quoted from inscriptions among some of the Dorians, especially among the Rhodians and their Sicilian colonists; these all come from roots without the thematic vowel: Rhod. *προτιθέμειν* C. I. 2525 b, l. 99, *εἴμειν* 2905 c. 7, Gelan *ἀναθέμειν* 5475, l. 25, Agrig. *εἴμειν*, *ἀναθέμειν*, *ἀποδόμειν* 5491, l. 18, 23, 24. In Epicharmus, too, Ahrens Dor. 315 thinks he finds traces of an ending *-μειν*, and in the appendix he adds *ἀνοικοδομηθήμειν* from an inscription from Telos near Rhodes published by Ross. This termination is evidently confined within very narrow limits. It deserves notice that these same inscriptions give us in part the strange form *παρείσχηται*, *παρεισχῆσθαι* (Ahr. 341), that is, another instance of *ει* in the place of a wide-spread *ε*.

2) Second Group: Infinitives in *-ναι*.

The forms like *φάναι*, *διδόναι*, *τιθέναι*, *δεικνύναι*, so common in Attic, are as entirely unknown to Homer as to the Doric and Aeolic dialects. Even of the perfect infinitive in *-έναι*, like *εἰδέναι* (Homer. *ἴδμεναι*), *γεγονέναι*, as Meister Stud. iv. 422 has already noticed, there is not the slightest trace to be found in Homer, any more than with the Aeolians 100
and Dorians (cp. Ahrens Dor. 331). A deep rift here runs between the Greek dialects. For the Homeric we may, in accordance with what has been noticed above (p. 340), lay down the following rule, for the distribution of the three terminations *-μεναι*, *-μεν*, *-ναι*: *-μεναι* is used, evidently as an archaism, with the most different stems, *-μεν* only with stems with a short vowel, *-ναι* only with those with a long vowel. Hence

γνώμεναι and *γνῶναι*
φορήμεναι and *φορῆναι*
θέμεναι θέμεν and *θεῖναι* occur

but *not* **γνῶμεν* but *γνῶναι*
not οὐτάναι but *οὐτάμεναι* or *οὐτάμεν*
not εἰδέναι but *ἴδμεναι* or *ἴδμεν*
not τεθνάναι but *τεθνάμεναι* or *τεθνάμεν*.

There is only one exception to this rule, viz. *ἰέναι*, but this occurs very frequently, though often with the various readings *ἴμεναι* and *ἴμεν*. If we remember that here the form alone in use later on differs from the genuine Homeric form only by a single consonant, it becomes not improbable, as Leo Meyer Vergl. Gr. ii. 279 has already conjectured, that this exception was unknown to the genuine language of Homer. The collections given already on p. 339 f. show that the Dorians and Aeolians do not share this disinclination to infinitives in *-μεν* with a long penultimate. The disinclination is specifically Homeric, and quite leaves the impression of a custom fashioned in the circle of the epic singers. Infinitives in *-ναι* after a preceding long vowel are tolerably numerous in Homer, quite in accordance with the later language, as *ἀῆναι γ* 183, *ἁλῶναι* M 172, *βῆναι* M 459, *βιῶναι* K 174, *γνῶναι β* 159, *διαγνῶναι* H 424, *δοῦναι* Λ 319, *δῦναι* B 413, *εἶναι* N 369, *θεῖναι* Z 92, *στῆναι* Φ 266, *περιφῦναι ω* 236, and more common than all *εἶναι*. The present form *διδοῦναι* occurs as a quite isolated case in Ω 425, and must be placed among the numerous linguistic peculiarities of this book. All these forms are not established as Lesbian Aeolic; how slight the traces of them in Doric are is shown by Ahrens p. 316. Even in Pindar, according to Peter p. 63 *δεικνύναι* 101
(fr. 171 Boeckh) is quite isolated. On the other hand we find in the Arcadian dialect *ἦναι*=*εἶναι* (Teg. 10), *ἀπειθῆναι*, *κατυφρονῆναι* (ib. 49) answering to the Homeric *εἶναι* and *φορῆναι* (cp. above p. 339).

3) Third Group: Infintives in *-εν* (*-ειν*, *-ην*).

In the formation of the infinitive from verbs with a thematic vowel the Greek dialects agree very much more than in that of verbs in *-μι*. The old forms in *-μεναι* and *-μεν* grow antiquated much sooner after a thematic vowel. From the very earliest times we meet with infinitives in *-ειν* (Aeol. *-ην*, Dor. *-εν*) everywhere on Greek soil. Even in Homer this ending is far more common in the present than the *m*-formation. If I may trust my collections, there are 151 infinitives in *-ειν* (including

the contracted verbs) against 84 *m*-formations. In this statement all compounds are reckoned along with the simple verb as one. It is especially noteworthy that the contracted verbs can only form their infinitive in two ways, either in the Aeolic fashion: καλήμεναι, φορῆναι, or with the ending -εν, whether uncontracted, περάαν, ὀχέειν or contracted νεικεῖν, πειρᾶν. We might indeed conceive of forms in -εεμεν, -αεμεν or -ειμεν, -ᾶμεν, but nothing of the kind is heard of. Evidently the formation of the infinitives in -μεναι and -μεν established itself at a time in which there were not yet any contracted verbs in the later sense of the word. When these came up and formed their infinitives in a manner corresponding to the other flexion, the forms of the third group, which by this time had been quite usual, were selected; by the side of these it was only Aeolic forms like φορήμεναι which held their ground here and there in the usage of the minstrels.

The present infinitives in -ειν are Ionic in the wider sense, hence they are also Attic; but besides they are also current in the so-called milder Doric (Ahrens Dor. 170), and hence they have been recently quoted e.g. from the Locrian dialect (θύειν, ἄγειν, φάρειν, Allen Stud. iii. 237). The Lesbian Aeolians used -ην instead (Ahrens Aeol. 89). On inscriptions we find συμφέρην (C. I. no. 2166, 29), ἀρκέην, ἔχην, ἐπιγράφην (no. 3524, 17, 29, 37), φεύγην (Sauppe de duabus inscr. Lesbiacis Gött. 1870, p. 24), in M.SS. ἄγην (Sappho 1, 19), κρέκην (ib. 90), φρον-
102 τίσδην (41, 2), on the strength of which -ην is universally written in the infinitive in Sappho and Alcaeus. The same termination is frequently denoted as Doric by grammarians; but, as Ahrens (p. 158) shows, this can at most be the case for some branches of Doric, especially for Laconian. In Theocritus -ην as an infinitive termination is not certain.

Instead of this we find the shorter ending -εν (Ahrens, p. 176) abundantly established from different sections of Doric. There is the evidence of inscriptions for the Cretan forms φέρεν, τίκτεν, ἀναγινώσκεν, σπείρεν (Helbig p. 33), the Heraclean ἀγγράφεν, ἔχεν, ὑπάρχεν (Meister Stud. iv. 421), the Theraean ἐγγράφεν, the Delphic ἄγεν, φέρεν, θύεν. Finally the Arcadian ἰμφαίνεν, ἐπηρειάζεν, ὑπάρχεν (Gelbke Stud. ii. 26) are to be noticed. Even the conjugation vowel ε of the derived verbs cannot produce a long syllable. In the Theraean dialect there are διωκέν, λειτουργέν, in the Delphic ἐνοικέν, in Cretan νοέν, ποιέν, in the Pythagoreans κρατέν, θεωρέν, as against contracted forms of the α-conjugation, like the Delphian ἐπιτιμῆν, συλῆν. The reduction of a double ε to a single one before final consonants is one of the recognised peculiarities of Doric.

We come now to the aorist infinitives. For these we must refer in the first place to the thorough investigation by Renner in Stud. i. 2, 32. In Homer we find the ending -εειν according to Renner's calculations 102 times, but only in 14 places before a vowel, e.g. μ 446, εἰσιδέειν· οὐ γάρ κεν ὑπεκφύγοι αἰπὺν ὄλεθρον, Δ 263 ἔστηχ' ὥσπερ ἐμοί, πιέειν, ὅτε θυμὸς ἀνώγῃ. There are further three other forms, the contracted, e.g. ἑλεῖν, ἀδεῖν, πιεῖν, which in some verbs is the only form of the kind admitted by the metre, e.g. ἀλαλκεῖν, ἁμαρτεῖν, εἰπεῖν, πεπιθεῖν, while other stems on the contrary exclude the open form, e.g. δραθέειν, ἐρυκακέειν, πραθέειν; secondly, -έμεν: ἀλαλκέμεν, φαγέμεν, σχέμεν, πιέμεν; most rarely -έμεναι: ἀλαλκέμεναι, ἐλθέμεναι. According to my calculation there are 19 different aorist infinitives, for the most part in very common use, in -εειν, 21 in -εῖν, 10 in -έμεν, 4 in -έμεναι. Hence here

too, as in so many other cases, the form which in later times is the only one in use, is even in Homer the most usual. Hesiod, according to Förstemann de dial. Herod. p. 33, in the Opera, and the Theogony, has only the contracted form (*ἀμφιβαλεῖν, ἐνισπεῖν, ἐλθεῖν, ἰδεῖν, θαιεῖν*), in the Scutum, which for the most part comes nearer to the Homeric language, 5 aorist infinitives in *-εειν* occur in 6 passages: 103
ἑλεεῖν 337, *λιπέειν* 332, *μαπέειν* 231, 304, *πιέειν* 252, *πραθέειν* 240; twice before consonants (*λιπέειν καί, πραθέειν μεμαῶτες*), four times before vowels in the main caesura of the third foot. The traces of the termination *-εειν* in elegiac and iambic poets are extremely faint, while the Alexandrine poets in their imitation of Homer by no means reject them. There is absolutely no instance of an infinitive in *-εειν* on an inscription. They have disappeared from the text of Herodotus in consequence of the investigations of Bredow (p. 324 ff.) and Stein, the M.SS. evidence for them, which in Hippocrates also is weak, not recommending them. The Attic *ἰδεῖν, λαβεῖν, μαθεῖν* etc. point by their accent to contraction. In the same way in the Laconian passage in Aristoph. Lys. 1004 *σιγῆν* (=*θιγεῖν*) is read according to the traces of the Ravenna M.S.; and the Dorian aorist infinitives in *-εν*, like the present infinitives of the contracted verbs are accented as oxytones: *τεκέν, ἐξελέν, ἐμβαλέν, συναγαγέν*, while the Asiatic Aeolic law of accentuation requires us to write *ϝείπην, ἀποθάνην, ὑπόσχην* (Sauppe de inscr. Lesb. p. 24). Reserving for the present the proof of this view, the fact may be here provisionally mentioned, that all these endings may be easily explained from a primitive form in *-εεν*.

One extraordinary formation still remains, viz. the few instances of an infinitive in *-ν* instead of *-ναι* from primitive aorists. There are probably not more than two which can be established, *πάρην*=*παρεῖναι*, mentioned above p. 339, and *δῦν*=*δῦναι* (Conze, Reise auf Lesbos). Since, as we saw, the Arcadians had forms like *ἀνειθῆναι*, against which there are Lesbian forms in *-ην*, it is natural here to conjecture a loss of the syllable *αι*, which would also serve to explain the Aeolic passive infinitives like *μεθύσθην*=*μεθυσθῆναι*. *φῦν* is quite isolated, and extremely doubtful in Parmenides v. 65 ed. Karsten, where the M.SS. give the unmetrical verse.

ὕστερον ἢ πρόσθεν τοῦ μηδενὸς ἀρξάμενον φῦναι.

πῖν is just as doubtful in Anthol. xi. 140, where the M.S. has

οἷς οὐ σκῶμμα λέγειν, οὐ πεὶν φίλον

while Planudes gives *πίν*. We should probably read *πιεῖν* with synizesis. Finally *δοῦν* twice occurs before vowels, viz. Theogn. 104 *τοῦ μεταδοῦν* 104
ἐθέλοι and Phoenix Coloph. v. 20 *νόμος κορώνῃ χεῖρα δοῦν ἐπαιτούσῃ*. Perhaps it is best to indicate by an apostrophe in both cases the elision of the *αι*.

As the fourth group of the infinitives, the aorist infinitives in *-σαι*, show no variations whatever within the range of Greek, and the fifth group containing the middle infinitives in *-σθαι* very slight ones, there is no reason to occupy ourselves more in detail with pointing out these forms, and we may at once turn to the question of the origin of the different forms, a question which in some points is one of difficulty.

The nature of the infinitive, both formal and syntactical, has been thoroughly discussed of late, especially in the writings of Wilhelm de infinitivi forma et usu, Eisenach 1872, and Jolly Geschichte des Infinitivs im Indogermanischen, Munich 1873. By way of elucidation of the Greek infinitives the following important facts are brought out by this discussion:

1) In every infinitive form we have to expect, besides the verbal stem, which in many cases is still further characterised as a tense stem, a nominal suffix and a case suffix.

2) The same multiplicity of nominal suffixes, which has already met us in Greek, prevails in the infinitive in several of the cognate languages, above all in the Vedic dialect; and this is sufficient to warn us beforehand to use the greatest caution in the attempt to prove the identity of formations which only distantly resemble each other, without adequate reasons.

3) In Greek we can discover with certainty only such case suffixes as denote the locative or possibly the dative. The locative is adapted for the infinitive, inasmuch as it denotes the sphere within which an action takes place, the dative, inasmuch as it denotes the object with reference to which an action is done.

Now if we consider in the first place the first group of active infinitives, the polysyllabic forms in *-μεναι*, with which we were concerned on p. 339 find their complete correlate in the Vedic forms in *-manē*, of
105 which Delbrück Ind. Verbum p. 226 however quotes only five instances. But of these five, two correspond in stem also to Greek forms: *dā-manē* =*δό-μεναι*, *vid-manē*=*ἴδ-μεναι*. We have further the Zend infinitives in *-mainê* (Wilhelm p. 14) like *çtao-mainê* praise from rt. *çtu*=Skt. *stu*. There can be no doubt about the origin of these forms in Sanskrit. *-man* is here one of the most common suffixes for the formation of abstract substantives, and *-man-ē* the dative of this suffix. From the stem *vid-man* there is an instrumental, from the stem *dā-man* a genitive as well as the dative used as an infinitive. The case is the same with the Zend *-mainê*, the dative of the nominal suffix *-man*. Hence if *δό-μεναι* is identical with *dā-manē*, which does not differ at all phonetically, it follows that *δό-μεναι* also is a dative. And such is the opinion of Bopp Vergl. Gr. iii.[2] 324, Leo Meyer Vergl. Gr. ii. 281, Delbrück Ztschr. xviii. 82, Wilhelm p. 14. I have hitherto in agreement with Schleicher (Compend.[3] p. 401) especially in the 'Elucidations'[2] p. 197 (E. T. p. 221, but cp. pp. 198–202 of the third German edition) held a different view, influenced chiefly by three considerations. In the first place it seemed to me improbable that the infinitive ending *-μεναι* contained a different case from *-εναι*. But the latter e.g. in *εἰδ-έναι seemed* from its similarity to the Skt. *vēd-anē* the locative from a stem *vēdana*, to be established as a locative. This argument is not valid, because, as we have seen already, *-εναι* is post-Homeric, and, as will be shown, is very different from this *-anē*. Secondly, while Latin has a suffix *-men*, corresponding to the Skt. neuter *-man*, Greek gives only neuters in *-μα* (from *μαν*). Hence we should rather have expected *-μαν-αι*. On the other hand it seemed to be easy to connect *-μεναι* as a locative of a feminine stem *-μενα* with the Greek participles; and there was little to surprise one in the middle force of the latter, inasmuch as it was evidently only by degrees that the distinction of the *genera verbi* became established, while in abstract

substantives like πλησ-μονή, which are unmistakeably akin, there is nothing of a middle character (cp. Jolly Infinitiv p. 85). There is no great weight in this consideration, because the heavier vowel *a* in these much-used forms, after their connexion with those in μα(ν) had become obscured—cp. ποιμήν, ποιμένος—might easily have been 'thinned' into ε. Thirdly -αι nowhere occurs as a suffix of the dative. But as -αι is 106
the regular representative of a Skt. ē, e.g. in the personal endings -ται =tē, -νται=ntē, the assumption that the old -αὶ in this place retained its full strength, has at least some analogies in its favour. The improbability that the Skt. *dā-manē* and δόμεναι agree purely by accident, and the impossibility of explaining the Sanskrit form otherwise than has been proposed, i.e. as a dative, remain the principal facts. Hence I agree now in regarding the dativel origin of the Greek forms in -μεναί as established.

Then comes the question how the shorter -μεν is related to this -μεναι. The almost universal opinion, to which I have hitherto unreservedly given my assent, is to the effect that -μεν simply arose from the fuller -μεναι by the loss of the -αι. A confirmation of this view could apparently be derived from the accent. For the accentuation οὐτάμεν, εἰπέμεν, ἀγέμεν, which violates the ordinary rule for the accent of verbs, points decidedly to some loss at the end. But it is still difficult to assume that the long diphthongal ending has been dropped. The loss of the -αι could at most be supported by the elision of the -αι in verbal endings before vowels, and by the consideration that the consciousness of the meaning of this element must have become very faint even in the earliest times. A further support, which this view seemed to find in the assumption that the ending -εν was in the same way a shortened form of -εναι, quite fails us. For, as we shall see, -εν never occurs side by side with -εναι, and is a completely distinct formation. And it is only in the case of the Lesbian Aeolic infinitives in -ην by the side of -ῆναι (μεθύσθην) mentioned on p. 343 that there is any more probability in the loss of the diphthong, although even here another view is possible. Under these circumstances it seems to me very doubtful whether we can refer -μεν to -μεναι, and it appears more probable that, as others also have conjectured, -μεν has lost a simple -ι. Thus δόμεν-αι would be *dative*, δόμεν for δόμεν-ι *locative* of the nominal stem δομεν. The loss of the ι has its complete analogue in the preposition ἐν by the side of ἐνί, and a more distant one in the 2 sing. in -εις for *εισι, *εσι
and in the plural datives and locatives in -οις, -αις by the side of the 107
earlier -οισι, -αισι. In this way we might explain also the Rhodian forms in -μειν: θέμειν would be to θέμεν from *θέμεν-ι as εἰν to ἐν from ἐνί, that is to say, we should have here an example of epenthesis. However I should not like to attach too much weight to this latter conjecture. Naturally we cannot suppose that there was any more difference of meaning between -μεναι and -μεν, than in Sanskrit between the infinitive forms originating in the dative and those from the locative. The category of the infinitive, which Jolly very justly places along with the adverbs, rests rather upon the petrifaction of the case-suffix.

We come next to the second group, the infinitives in -ναι. For the correct explanation of these forms the statistical data given on p. 340 ff., which have not as yet received due attention, are of the very greatest importance. Previously, starting from the Attic εἰδέναι, I regarded the ε as an essen-

tial element of these infinitives; and hence I compared e.g. *ϝειδέναι* with the Skt. locative *vēdanē*, which is used in later Sanskrit as an infinitive. But it is an error in philology to compare an evidently late Greek form with a Sanskrit form which is likewise somewhat recent. And in fact the traces of Vedic infinitives in *-anē*, as Delbrück p. 225 shows, are extremely scanty. The two which rest on certain evidence, *dhurv-anē* ad pugnandum and *turv-ánē* ad vincendum, are regarded by Wilhelm p. 15 as datives from stems in *-an*. If we consider how in the Vedas the most different stem-formations are in isolated instances used in particular cases in a manner resembling the infinitive, we shall admit that this agreement may very easily be purely accidental. On the other hand two facts of the Greek usage can hardly rest upon chance, viz. firstly that the Homeric language, with the exception of *ἰέναι*, mentioned on p. 341, and probably incorrectly recorded, has only infinitives in *-ναι* with a long penultimate; and secondly that the penultimate, contrary to the general course of verbal accentuation, in all Greek dialects has always the accent: *γνῶναι, σὐτάναι, τιθέναι*. The two facts combined make it probable that this termination has suffered the loss of a
108 syllable before the *ν*. The vowel before the *ν*, which in Homer is always long, and which in all Greek without exception is accented, always belongs to the stem, and not merely in *διδό-ναι, φά-ναι, τεθνά-ναι, φορῆ-ναι*, where this is self-evident, but also in *εἰδέ-ναι*, which is connected with *εἰδέ-ω, εἰδε-ίη-ν*. Hence we cannot talk of an ending *-εναι*, but only of *-ναι*. Now some might wish to make use of these facts to show that the *-ναι*, to which we are thus brought, is a shortening of *-μεναι* through the intermediate stage *-μναι*. We should thus have series like

γνώ-μεναι	* *γνω-μναι*	*γνῶναι*
φά-μεναι	* *φα-μναι*	*φάναι.*

The syncope of the *ε* would find support phonetically in forms like *μέδι-μνο-ς, μέρι-μνα, τέρα-μνο-ς* and in Latin words like *alu-mnu-s, colu-mna*. But it would be difficult to adduce a single Greek analogue for the reduction of *μν* to a mere *ν*: *μν* is an extremely favourite combination in Greek. The form *δοῦναι* leads us on another track. Benfey Orient u. Occident i. 606 (cp. Wilhelm p. 17) compared this with the Vedic *dāvánē*, which is indeed according to Delbrück p. 225 quite isolated, but which occurs frequently, and can only be explained as the dative of a nominal stem *dā-van*, derived from the rt. *dā*. This comparison remained till lately a mere conjecture, but it has recently found a striking confirmation in the Cyprian *δοϝέναι*, which occurs twice (cp. Deecke u. Siegismund Stud. vii. 248). Now are we to suppose that *δοῦναι* was formed in a quite different manner from *διδοῦναι*, or that the isolated Homeric *διδοῦναι* is an absolutely distinct formation from *διδόναι*, and both again from *γνῶναι, θεῖναι, φάναι*? In this way we arrive at a certain degree of probability that all infinitives in *-ναι* have originated in *ϝεναι*. As *δοῦναι* came from *δοϝεναι*, so *θεῖναι* would have come from *θεϝεναι*, *γνῶ-ναι* from *γνω-ϝεναι*. The post-Homeric forms *διδόναι, φάναι, εἰδέναι* would be later formations, arising at a time in which the medial *ϝ* was completely extinct. But at least in the accentuation of the penultimate there still remained a reminiscence that it was once an antepenultimate. Cp. *ἔ-κο-μεν* for *ἔ-κοϝ-μεν* from the rt. *κοϝ* (Princ. i. 186),

κλόνι-ς for κλοϝ-νι-ς (ib. i. 184). I do not venture to give this explanation as a certain one. But it will be admitted that it agrees with the 109
recorded facts and with phonetic laws. It would not be absolutely impossible that φά-ναι, τιθέ-ναι and the like should be locatives formed by means of the suffix -να; but then the accent would remain entirely unexplained.

All the earlier discussions of the forms of the third group start from the arbitrary assumption that the ν of the ending -εν was a mutilated -ναι, hence that λέγειν originated in *λεγειναι. Now under the head of the μ-formation it seemed to us that there were serious objections to the admission of such a loss of the end of the word: and hence all probability for such an assumption in the case of the third group is wanting. For in no single instance within the limits of the present and aorist formation is there even the slightest trace of a longer form by the side of the shorter known to us. Forms like *λεγειναι or *λεγεναι or *φυγειναι, *φυγεεναι or anything of the kind that has been imagined, nowhere exist. For the immense mass of verbs with a thematic vowel the infinitive in -ειν (Dor. -εν, Aeol. -ην) is established beyond doubt from the earliest times. To derive very ancient forms common to all Greek, like λύειν (λύεν, λύην) from forms like γεγονέναι, εἰδέναι, in which we take the ε to be an element of the tense-stem, and which make their appearance only at a comparatively late date, is moreover forbidden by the accentuation. Besides we could not thus explain either the doubled vowel in φυγέειν (or φυγέεν), or the length of the final syllable in λύειν, λύην. For the assertion that the vowel of the preceding syllable was lengthened in compensation for the dropped αι, happily belongs to a point of view which has long been passed by philologists. Leo Meyer Vergl. Gr. ii. 281 traces back forms like λύειν, φυγεῖν to λυέ-μεν, φυγέ-μεν. Certainly in this way the diphthong of the ordinary form and the doubled ε of the Homeric would both be explained. But it is quite impossible to adduce any analogy for the loss of a consonant so much liked and so common as μ from the middle of a word between two vowels. No one will appeal to the loss of *m* in the Skt. ē=*mē of the 1 sing. middle, for we have here to do with a fact which falls within the life of the Greek language; and still less to the explanation of the Greek 1 sing. mid. in -μαι from *ma-mi*, defended on p. 55, for here too, even in the 110
earliest times of the Greek language as we know it, no *m* remained before the *i*. The loss was occasioned by the aversion to too much repetition of the same sound in formative syllables. Forms like θέμα, ὄνομα, εὕρημα are among the commonest in Greek; and as the infinitives in -μεναι and -μεν are evidently akin to the substantives in -μα, we cannot see what can have induced the language to get rid of this μ only in the infinitives, while everywhere else it had no objection to it. For this very reason this theory was very early opposed by another, which regarded the suffix -εν as completely independent of -μεν. As early as my essay 'De nominum Graecorum formatione,' p. 56, I expressed myself in favour of this, though I there expressed several erroneous opinions on the subject in question. Schleicher agreed with me in principle, tracing φέρειν back to a primitive form *φερεναι, totally distinct from φερέ-μεναι (Comp.[3] p. 411). But in the first place *φερεναι is, as we have seen, a pure figment of the imagination, destitude of any analogy; and in the second place even with the help of this hypothetical form Schleicher can only

explain the diphthong of φέρειν by assuming *φέρεϊ as an intermediate step between *φερεναι and φέρειν. But in what other instance have we a final αι shortened to ι? An advance is marked by Scherer, Zur Gesch. d. d. Spr., p. 474, who, though he also refers φέρειν to *φερενι, does not take this hypothetical form as the shortening of an equally hypothetical *φερεναι, but as the locative of a neuter stem φερ-εν. But this view also is untenable; for, to say nothing of the fact that such stems in -εν (cp. Lat. *unigu-en*) are unknown in Greek, it would be absolutely impossible to explain from a primitive form *φερενι the Doric φέρεν and Aeolic φέρην, or from an analogous *φυγενι the Homeric φυγέειν and Attic φυγεῖν. The forms of the Greek dialects, like

Aeol. φέρην Dor. φέρεν Ion. φέρειν

point with certainty to a primitive form *φέρεεν, where we must take φερε as the stem, εν as the ending, as also in the Homeric aorist, the termination of which will require a more thorough discussion immediately, we find both ε's side by side.

This is the place to return to those remarkable forms, which have not hitherto received due consideration in the discussion of the infinitive
111 formation, as we promised to do on p. 343. We saw that the ει of the present infinitive in -ειν points to contraction. But φέρειν cannot have come from *φερε-ειν, as we might at first conjecture, for then the form would have to be perispomenon; and even supposing that the Ionic diphthong ει had arisen otherwise than by contraction from εε, the Doric and Aeolic forms φέρεν φέρην would be inexplicable. But if φέρειν goes back to φερε-εν, for φυγεῖν we have evidently to expect not φυγέειν but *φυγέεν as the earlier form. For between the present and the thematic aorist stem there is not the slightest difference of declension in respect of personal endings, moods and verbal nouns, with the one exception that the aorists in the infinitive and participle are inclined to accentuate the element which does not belong to the stem. This tendency to which we shall return under the head of the participle, gives us the inestimable advantage of being able to recognise φυγεῖν at once, by the accent, as a contracted form. That these active aorist infinitives are perispomena, and the corresponding middle forms are paroxytones is the well-established doctrine of the old grammarians. We may here simply refer to Arcad. 173, 20, Herodian ii. 185, 25. Certainly this doctrine was based upon the observation of the living language. There were only a few Homeric, i.e. no longer living forms, on which there were doubts and controversies (cp. Göttling Accentlehre, p. 56, which we had occasion to mention on p. 276.

In the old copies of the Homeric poems the infinitives under discussion must have been written ΦΥΓΕΕΝ ΙΔΕΕΝ etc. For the μεταχαρακτηρίζοντες of the Attic time, who themselves said φυγεῖν, ἰδεῖν, and who, as may be concluded from numerous facts, were of opinion that the poets not uncommonly allowed themselves the 'pleonasm' of a vowel before another of the same sound, it was extremely natural to reproduce these forms by φυγέειν, ἰδέειν, and so not merely to satisfy the requirements of the metre, but also to approximate to the Attic practice. The forms in -εειν, required by grammatical analysis, adapt themselves to the verse, as we have intimated above (p. 342) in the great majority of
112 instances without difficulty. Where a consonant immediately follows

such forms, this is self-evident. Of the 14 passages in Homer, which contain such infinitives before vowels, there are 7 in which the length of the termination *-εν* may be completely explained by the main caesura of the third foot, verses like

Σ 511 *ἠὲ διαπραθέειν ἢ ἄνδιχα πάντα δάσασθαι*

besides T 15, Ψ 467, Ω 608, *α* 59, *ι* 137, λ 232. There is nothing more surprising in the quantity of the syllable *-εν* here than in

B 228 *πρωτίστῳ δίδομεν, εὖτ' ἂν πτολίεθρον ἕλωμεν.*

Again in the 5 passages in which such an infinitive stands in the caesura of the fourth foot, there is not much to astonish us in the lengthening of *-εν*, e.g. *ε* 349

ἂψ ἀπολυσάμενος βαλέειν εἰς οἶνοπα πόντον

Cp. Δ 263, K 368, X 426. Compare H 418 (cp. 420).

ἀμφότερον, νέκυάς τ' ἀγέμεν, ἕτεροι δὲ μεθ' ὕλην.

In *θ* 508 *ἐρύσαντες* with its *ϝ* would be quite enough to lengthen the final syllable of **βαλέεν* (cp. Stud. vi. 266). Two verses remain in which the polysyllabic character of the word makes such a phenomenon explicable even in the second foot:

μ 446 *εἰσιδέειν, οὐ γάρ κεν ὑπεκφύγοι αἰπὺν ὄλεθρον*
τ 477 *πεφραδέειν ἐθέλουσα φίλον πόσιν ἔνδον ἐόντα.*

The lengthening of a final syllable short in itself would here come under the same head as the cases, quoted by Hartel Hom. Studien i.[2] 116, e.g. *εἰδόμενος Ἀκάμαντι* E 462. The examples from Hesiod are all in the caesura of the third foot. It will be seen how easily the forms in *-εεν* can be introduced into the text of Homer and Hesiod.

But we have not quite finished even yet with these forms. The stem-forming suffix and the case-ending have yet to be determined. Scholars used to be disposed to put this infinitive ending side by side either with noun-formations in *-εν*, *-ον*, or with those in *-ενα*, *-ονα*. But *-εν* occurs in Greek only in a few obscure substantives like *αὐχ-εν*, *-ον* somewhat more commonly, e.g. in *εἰκ-ον*, but without anywhere sharing anything in common with infinitives. Feminine substantives like *ἡδ-ονή* come nearer in meaning. But who can believe that a suffix with one initial vowel, having for its primitive form *-an* or *anā*, was from the first added 113
immediately to verbal stems ending in a vowel. It is by no means usual in the primitive formation of words to occasion accumulations of vowels and contractions. It looks much more as if the concurrence of vowels in *φευγε-εν*, *φυγε-εν*, as in countless other cases, e.g. in *γένεϊ*, *ἵκεο*, *εὔχεαι*, *φάεα*, *νείκεε*, had originated in the loss of a consonant. The question then arises, what consonant? According to Greek phonetic laws, as we have seen, we cannot suppose the loss of a *μ*, which has often been conjectured: but we must take our choice among the three spirants *j*, *v*, and *s*. I do not see anything in favour of the first two; for we should have to imagine a locative from the suffix *-van*, *-vani*, corresponding to the dative *-vanē* (*dā-vanē*), but there is no hint of anything of the kind. On the other hand the third would find some support in the Vedic ending *-sani*. Delbrück p. 227 quotes 8 forms of the kind from different stems, e.g. *pra-bhū-sháni* from the rt. *bhū*=Gr. *φυ*. There is, it must

be admitted, no such infinitive from a stem in a thematic vowel, as we might expect as an immediate parallel for the Greek forms, no **bharasani* as an analogue to φερε-(σ-)εν. If this comparison is correct, we must assume a loss of the final locative *i*, i.e. the same process which we regarded as probable for the ending -μεν on the analogy of ἐν as compared with the Homeric ἐνί. In this way we might even find some support for the diphthong ει by the side of the thematic ε, in opposition to our previously expressed view: φυγέ-ειν might have come, by means of epenthesis, from *bhuga-sani*, like εἶν from ἐνί and possibly the Rhodian -μειν from *mani*. However, there are weighty reasons against such a combination. For as the Doric φυγέν, θιγῆν cannot possibly be traced back to φυγέειν, θιγέειν, we should have to regard the ending -ενι, -ειν with a transposed ι as a peculiarity of the Ionian main dialect. But even within this dialect the ει of the ending ειν is evidently not genuine. The contracted verbs show no trace of the ι in forms like τιμᾶν, μισθοῦν, and the accentuation of φέρειν makes a contraction from *φερεειν inconceivable. We must therefore reject the hypotheses of an epenthesis of the ι.

114 According to the earlier hypotheses as to the infinitive suffixes the most usual Greek infinitive formation seemed to find its most complete analogies in the Teutonic languages, the German ending *-an* being compared with the Greek -εν, though this created fresh difficulties. If our parallel between -εν and *-sani* is correct—and I do not see anything which could prohibit such a comparison—Greek here approximates to the oldest Indian. It is not without significance from this point of view, that this infinitive ending is in the Vedas one of those 'which,' as Jolly, p. 132, puts it, 'deserve the name of infinitive in every respect,' i.e occur also as imperative. This discloses also a kinship with other Indian and Latin forms. It is natural to conjecture that the ending *sa-n-i* is connected in its first element with the suffix *-sē*, which is added rarely, e.g. in *ǵi-shē* from the rt. *ǵi*, conquer, directly to roots, and more often to stems in *a*, and then (cp. Delbrück, p. 223) is taken as *-asē*, e.g. *ǵīvá-sē*, live (pres. *ǵīvā-mi*). This formation has long been recognised as the analogue of the Latin infinitive, e.g. *da-re* for *da-se*, *vīve-re* for *vīve-se*. Thus *λεγε-σεν, conjectured as the earliest Greek form, and *lege-se* the earliest Latin form come tolerably near to each other. The Latin, as has long been recognised, agrees more exactly with the ending of the Greek infinitive of the sigmatic aorist, which we set down as the *fourth* group of Greek infinitive forms. We shall enter upon this more fully under the head of the sigmatic aorist.

Finally we have still to discuss the *fifth* group, the middle infinitives in -σθαι, which are common to all Greek from the oldest times. The few deviations like the Locr. ἐλέσται=ἐλέσθαι, Cret. ἀναιλίθαι, and the doubtful ἶτθαι· καθίσαι Hesych. have been already mentioned on p. 69 f. The Vedic dialect frequently makes use of the termination *-dhjāi*, which is undoubtedly to be compared with -σθαι, though no middle force is perceptible in it. The latter is something peculiar to Greek; and Jolly's investigations show that there are few languages in which the infinitive undergoes that more delicate development, which renders it capable of expressing διάθεσις. The Latins have formed for themselves
115 for the passive a form in *-ier*, subsequently *ī*, which in spite of all the pains spent upon it has not yet been completely deciphered. The Greeks selected one out of the numerous adverbialised infinitive-like formations

and by degrees confined its usage to an exclusively middle sense. The similarity of these forms, after they had been modified by phonetic changes, to Greek middle forms like *φέρεσθον*, *φέρεσθε*, *φερέσθω*, *φερέσθων* undoubtedly favoured this limitation of usage. We have Indian parallels to Greek infinitives in (Delbrück p. 226):

bhâradhjâi = *φέρεσθαι*
sâhadhjâi = *ἔχεσθαι*
saĸâdhjai = *ἕπεσθαι*.

It is worth noticing that such forms are also developed from expanded and derived stems, e.g. *piba-dhjâi* like *γίγνε-σθαι*, *pṛṇá-dhjai* like *τέμνε-σθαι*, *mandaja-dhjâi* like *τιμᾶσθαι*. The same termination appears in Zend as *-djâi* or *-dhjâi*, agreeing in usage with the Indian form; *verezjêidjâi*, as Jolly Inf. p. 87 writes, or *verezidjâi* as Spiegel and Justi read, the infinitive of the rt. *varez* (*verez*) which corresponds to the Greek *ϝεργ* or *ϝρεγ* do, agrees letter for letter with the Greek *ϝρέζεσθαι*. The same language supplies the isolated form *bûždjâi*, or as Justi writes it *bû-zhdyai*=*φύεσθαι*. In the sibilant which is found here before the termination Jolly l.c.[1] recognises a correlate of the *σ*, which regularly appears in this place in Greek. He conjectures that the sibilant is a relic of the rt. *as*, to be, 'be.' It seems to me more natural to think of the suffix *-as* or *s(a)*, which, we have already seen, was contained in the Indian and the Latin, and probably also in the Greek forms. On the analogy of simple formations like *φέρεσθαι*, such a suffix might also have been connected with more complicated tense-stems, e.g. in *λέξεσθαι*, *λέξασθαι*. However, on p. 71 we found a means of explaining the Greek *-σθαι*, according to which the *σ* might be of purely phonetic origin. Whether the entirely isolated Zend form necessitates a different analysis, 116
I will not now discuss, any more than the further question what relation it has with the *θ*=Skt. *dh*, Zd. *d* or *dh*. It may be regarded as established that this consonant here essentially forms a stem, and therefore has the same force as in the substantives *μισ-θό-ς*, *στῆ-θ-ος*, *πλῆ-θ-ος*, *ἄχ-θ-ος*, and also that *-dhjâi* is the dative of a stem in *-dhi*. But whether there is any connexion between this *dh* and the rt. *dha* place, do, as has often been conjectured, is a question which cannot be settled without more profound investigations of the Indo-Germanic stem formation. Cp. moreover Wilhelm de infinitivo, p. 23.

II. PARTICIPLES.

As compared with the variety and obscurity of the infinitives, the participles of the first two tense-stems present a very simple appearance. No one can fail to see that a definite and somewhat strictly limited portion of adjectival formations, even in the time of the Indo-Germanic unity, approximated to the verb in respect of government and variability, and continued to exist in the separate languages with forms clearly marked and but slightly altered, while in the case of the infinitive very different attempts were made, of which only a small portion found more extended acceptation.

[1] In the like manner Justi Handbuch des Zend, p. 372, says 'the inserted *zh* belongs originally to the termination.'

A) THE ACTIVE PARTICIPLE OF THE PRESENT AND THEMATIC AORIST.

The stem-forming suffix was originally after consonants *-ant*, after vowels *-nt*. As the latter suffix is unpronounceable, we shall have to start with *-ant*, and to explain the shorter suffix by supposing that the *a* disappears after a preceding vowel in the stem. The phonetic relations are precisely the same as in the formation of the 3 pl. in *-anti*, *-ant* and *-nti*, *-nt* (p. 46).

The following may serve as instances of the corresponding usage of this suffix for the same purpose.

Skt. *aǵant*, Gr. *ἀγοντ*, Lat. *agent*
„ *arhant*, Gr. *ἀρχοντ*
„ *bharaṇt*, Zd. *barañt*, Gr. *φεροντ*, Lat. *ferent*, Ch.-Sl. *bery* (nom. sing.)
„ *jant*, Gr. *ἰοντ*, Lat. *eunt*
„ *sant* (for *asant*), Zd. *hent*, Gr. *ἐοντ*, Lat. *-sent* (*prae-sent*).

117 The different colour given to the vowels in Greek and Latin deserves notice. Greek prefers the dull *o* with the consistency which distinguishes this language. Latin is less regular; and here and there, e.g. in *euntis*, *voluntas* (for *volunt-tas*), *voluntarius* and in *sont*, which according to Clemm's acute explanation (Stud. iii. 328 ff. [cp. iv. 205, viii. 344]), is identical with *sent*, the duller vowel appears by the side of the prevalent *e*. The initial vowel of the participle was afterwards completely lost in the Greek *verbum substantivum*. The Attic *ὤν* is to the Homeric and Herodotean *ἐών*, just as Ion. *ὁρτή* is to Att. *ἑορτή* or as Att. *ὅς* to Hom. *ἑός*. It is an instance of the phenomenon of hyphaeresis, thoroughly discussed by Fritsch Stud. vol. vi., esp. pp. 111–113. Westphal's attempt (Griech. Gr. ii. 106) to trace back *ὀντ* to *sant* breaks down from the fact that an initial sigma does not thus simply disappear. The Doric form *ἐντ* (dat. pl. *ἔντασσιν* tab. Heracl. i. 104) is formed upon the analogy of *θεντ*, *τιθεντ*, with the loss of the final *ς* of the root. The Homeric forms *ἔμεναι*, *ἔμεν* as infinitives are similar.

The accentuation of the suffixed syllable, which has become the rule in the aorists: *ἰδών*, *λαβών*, may be placed among the accentual tendencies mentioned on p. 348. But forms like *ἰών*, *ἐών*, *ἑκών* and Indian present participles belonging to the so-called sixth class, like *ṛdhánt* (*ṛdh*, *ardh* grow), *dvish-ánt* (*dvish* hate) *ruǰánt* (*ruǰ* break), show that the occasion for this was not an internal one, connected with the essential character of the aorist, but an external one, connected with the slight phonetic substance of the stem-syllable. It is worth noticing how far back this twofold accentuation goes in point of time. Another variation, which appears in the Asiatic members of our group of languages, on the other hand, has left no traces in Greek, so far as participles proper are concerned, the variation of the nasal in the participial suffix. In Sanskrit only a small portion of the cases retain the *n*, the majority reject it: nom. plur. *bhárant-as* = *φέροντες*, but acc. plur. *bhárat-as* = *φέροντας*; in some, especially the reduplicating stems, the *n* is altogether wanting: *dádat* = *διδοντ*. Even in Greek such formations with a suppressed nasal are not altogether wanting, as is shown most plainly by *ἀ-κμη-τ* as compared with *ἀ-καμα-ντ*: in Latin forms like *super-ste-t* as
118 compared with *stant* belong here (Leo Meyer Vgl. Gr. ii. 99). But only in such participles which have so to say run wild, i.e. have become separated from their verbs, does the nasal disappear: both Greeks and

Romans always excluded these variations from verbal flexion itself. The same is true of the other European languages. The complete disappearance of the *n* before *t* in Old Irish is based upon a far-reaching phonetic peculiarity.

For the relations between the vowels as to their length or shortness, e.g. *γνο-ντ* by the side of *ἔ-γνω-ν*, Aeol. *φιλε-ντ* by *φίλημι* it is sufficient to refer to pp. 135 and 247 and to Stud. iii. 379 ff., vi. 431.

B) The Middle Participle.

The suffix *-μενο* has long been recognized as connected with Skt. *-māna*, Zd. *mana* or *mna*, Lat. *mino* or *mno*. As the Indian form is alone in having a long vowel in the penultimate, we shall with Schleicher (Comp.[3] 398) regard this long vowel as by no means original.

Compare Skt. *dada-māna* and *διδο-μενο*
„ *tishṭha-māna*
Zd. { *hi-ste-mano* „ *ἱ-στα-μενο*
{ *hi-ste-mno*
„ *bare-mna* „ *φερο-μενο*, Lat. *feri-mini*
Skt. *ṛghāja-māna* „ *ὀρχεο-μενο*.

The tendency to suppress the middle vowel is present in Greek and Latin as well as in Zend; but in both languages it is excluded from the rule for verbal forms proper, and, like the omission of *n* from the active participle, is reserved for those adjectival and substantival forms which have no longer any connexion with the verb. In these wild offshoots there is also in several cases a more special agreement as to the vowel between Greek and Latin. Cp. *alu-mnu-s*, *vertu-mnu-s*, *colu-mna* on the one hand with the Greek forms in *ό-μενο-ς*, on the other with *alimini*: *στά-μνο-ς* stand, cask on the one hand with *ἱ-στά-μενο-ς*, on the other with Lat. *da-mnu-m*. *βέλε-μνο-ν*, *τέρε-μνο-ς* by their clearer vowel as compared with *βαλό-μενο-ς* remind us of the *i* of the Latin forms in *-i-mini*. Whether this is the case in a yet higher degree with *μέρι-μνα*, *μέδι-μνο-ς* need not be decided. We see that everywhere there is no lack of phonetic variations, and that the rule has only become established 119
in the case of the verb in consequence of the enormous number of analogies which obtrude themselves. A more exact examination[2] of the participial forms lying hid in adjectives, appellative substantives and proper names would promise large results for the more obscure side of verbal structure. Thus from the Homeric *ἐϋ-κτί-μενο-ς* and the proper name *Κτίμενος* we may deduce a rt. *κτι*, which occurs elsewhere only in the by no means primitive *κτί-ζω*: *οὐλό-μενο-ς* with its active meaning points to a present **οὔλο-μαι*, formed like *βούλο-μαι*, both probably belonging to the nasal class (cp. Stud. v. 218). In forms of this kind the interchange between the active and the middle or even passive meanings is very free. Consider e.g. *ἀκάμας*, *ἀδάμας* as compared with *Λαοδάμας*, *Κτίμενος*, which probably means 'founder' and *ἐϋ-κτίμενος*, *κρή-δεμνο-ν* and *βέλεμνο-ν*, *fē-mina*=*θη-μένη* 'the suckling'; in fact as a rule it is only in living verbal forms that such categories of meaning are found to be at all rigorously carried out.

[2] Cp. L. G. Franz 'De nominibus appellativis et propriis Graecis quae a participiis orta sunt,' a Leipzig doctoral dissertation of 1875.

CHAPTER XVI.

THE PERFECT STEM AND THE FORMS CONSTRUCTED FROM IT.

We have hitherto been dealing with two groups of Greek verbal forms, which in their wide ramification embrace an extraordinary number of varied structures. The twofold character of the groups was given clearly in a whole series of forms. But as was shown in Chapter XIII. there is no lack of intermediate members, forms which hover indifferently between the two, which may serve as evidence that this twofold character, i.e. present and aorist stems, proceeded from one common source. The close connexion of the two groups, one with the other, may be recognized from the fact that in respect of the formation of the moods and of verbal nouns, there are only very slight differences between them; and this is the reason why we were able to deal with them in common.

120 A very different appearance is presented by a third group of forms to which we now proceed, the group of the perfect; and the difference is especially marked in the form with which we are familiar from Greek. The personal endings are not indeed in themselves very different: and we recognize at once the twofold nature of the addition of the terminations, which is known to us from the present and aorist stems. It is evident that ἴδ-μεν is to οἶδα-μεν just as δείκνυ-μεν to δεικνύο-μεν. But instead of the thematic vowel with its regular variation between *o* and *ε*, the vowel of the perfect active is *α*, which is weakened into *ε* only in the third person. In the perfect middle, on the other hand, there is no such vowel. These differences between the inflexion of the first two stems and of the third stem do indeed in part disappear as soon as we turn from Greek to Sanskrit, where the vocalism presents a different and in some respects a more ancient appearance. But even here, as in the other two families of languages which have a perfect, the Italian and the Teutonic, similar means of distinction are not lacking.

The certain sign of the perfect, and of all that comes from the perfect stem is reduplication. We have learnt to discover reduplication also in the first two tense-stems. But there it appeared more occasionally. Here it is essential. Greek especially has also provided for the distinction by a delicate shade of vocalism. The perfect βεβᾶσι cannot be confused with the present βιβᾶσι, nor τέτευχε with the aorist τέτυχε. We have already repeatedly, especially on p. 288, referred to these relations. But in spite of this, and although the germs of such distinctions go back in part to early periods in the life of language we have seen (l. c.) that all reduplicating formations were originally one and the same. It seems to me hardly to admit of a doubt that the perfect indicative was originally nothing but a particular kind of present formation. As a reduplicated present with an intensive meaning this form separated itself from the present-stem, and became by degrees an in-

dependent member in the system of verbal forms, with a distinctive stamp of its own. The history of this process of separation lies clearly 121
enough before our eyes. The numerous perfects with the force of a present, and the creation of a preterite from the perfect stem in the different branches of our stock give the clearest proofs of this. We shall return very soon to these important relations of meaning.

While we may in this way, as it seems, follow up the perfect to its first origin, so too extremely abundant materials lie before us here from the later periods of the history of language, especially from the history of Greek, for which we have the evidence of literature. The store of perfects in the language of Homer,—especially in the active—is but meagre, as compared with the wealth of Attic and later prose in such forms. The treatment of reduplication, where there is an initial vowel, differs considerably from the method which afterwards became the rule. The important species of perfects in κα, which we afterwards find in hundreds of instances, is only just beginning in Homer: the aspirated perfect is altogether lacking, while in Homer, as in the older representatives of the Ionic dialect generally, we discover remarkable tendencies to aspiration of a different kind, which are afterwards lost. With the Dorians, the perfect, so far as concerns the terminations, follows much more than elsewhere the analogy of the present. Here and in part with the Aeolians the vocalism presents phenomena, which remind us in many ways of the Italian perfects. For the pluperfect active it is only in the Attic period that the method of formation is established with complete regularity. In short we may say that the perfect is in every respect a developed verbal form, and not one which was complete to begin with and everywhere uniform. Although the antitypes of the Greek perfect may be recognized in some of the cognate languages, the stamp given to this form is in every family of speech an individual one. The perfect can hence give us the fullest indications of the course which the genius of the language takes in proportionately late periods. But everything is intelligible only against the background of the old forms; and hence comparative philology has yielded especially valuable results in the case of the perfect.

We begin our account with the element which is the most characteristic of the perfect stem, reduplication. In its wealth of reduplicated 122
perfects the Greek language is superior to all others. Reduplication appears only within a limited range in Latin, Gothic and Erse. In Sanskrit it is far more common, but it occurs only in primitive, not at all in derived verbal stems. The latter have to resort to a periphrastic formation for the perfect. The Greeks alone have given a further extension to reduplication from such ancient examples, and applied it to all verbal stems without exception. Naturally the rule became all the more firmly established with the abundance of instances, and the tense-stem of the perfect was universally more richly and regularly framed.

I. REDUPLICATION IN THE PERFECT.

A) With an Initial Consonant.

Reduplication means repetition of the verbal stem. But from the earliest times language was in many cases content with a mere indication of this repetition. In comparison with the repetitions in word-formation, which were carried out with more vigour, though here and there also peculiarly broken and mutilated,—for which I may refer especially to the most recent investigations by Fritzsche and Brugman in the Studien, vols. vi. and vii.,—this means of emphasis had to be carried out for the purpose of verbal flexion in a light but recognizable manner in the perfect with a certain regularity. For it is desirable for inflexion that the moveable as well as the immoveable element should not be too completely obscured, and the earlier the period of language, the more clearly do the two come out. Regularity is shown in the case of the Greek perfect reduplication first in the vocalism, and that quite without exception. The reduplication-syllable—so we call that prefixed to the stem—has without exception, where it appears as such, the vowel ε. This is not the case with the cognate languages. In Sanskrit the vowel of the reduplication-syllable is as a rule like the vowel of the root. Thus from rt. *ǵan* is formed *ǵa-ǵāna*=γέ-γονα, but from rt. *rik*=λιπ *ri-rēka*, which would correspond to a Greek *λι-λοιπα; and in the same way *ǵu-ǰōsha* from rt. *ǵush* enjoy, resembling a Greek *γυ-γευσ-μαι for
123 γέγευσμαι. The same rule holds for Zend, e.g. *çu-çru-ma*, we heard, answering to a Greek *κυ-κλυ-μεν (cp. aor. κέκλυτε). But even in Sanskrit there are some few remarkable instances of a process more analogous to the Greek, especially *ba-bhūva*, which answers quite to the Homeric 3 pl. πεφύασι, and *sa-sūva* from the rt. *sū*, beget. Now, as we find also in the Latin perfect the fluctuation between *peposci* and *poposci*, *tetudi* and *tutudi*=Skt. *tutōda*, we may doubtless conjecture that during the time of the united life there was as yet no fixed rule. In Sanskrit the more physical method of repetition (so to speak) whereby the sound of the stem-syllable fell more clearly twice upon the ear, prevailed, in Greek the more intellectual, whereby reduplication became (so to say) a servant of the idea of the perfect, clothed in a uniform livery. The numerical superiority of the roots with an *a* may have given rise to this uniformity, as early as the time when this vowel had not yet split. For Latin it is well worth noticing that the earlier custom of saying *memordi*, *pepugi*, and the like (Gellius vii. 9, Neue Lat. Formenlehre [2] ii. 464) coincides with the Greek. The later language retained, it would seem, too few instances of reduplicated perfects to hold to the old rule, so that complete identity of sound, to which the nature of reduplication must have invited, again prevailed. Cp. Ber. d. k. Sächs. Ges. d. Wissen. Juli 1870, p. 14. Similarity of vowel is the rule also in Gothic, *fai-fah*, *skai-skaid*, *ai-auk*. The *ai* is taken to be short, and thus the representative of *e* by Scherer Gesch. d. d. Spr. p. 11, and recently by Bezzenberger 'Ueber die A-Reihe,' p. 37. In Old Erse too, *e*, though not always used as the vowel of the reduplication-syllable, is employed by preference. In my way of regarding these facts I agree almost entirely with what Delbrück Altind. Verb. p. 127, following Lassen, has indicated as his own.

The difficulty presented by the consonants was greater than that of the vowels. Here too we notice an attempt at simplification. It shows itself first in the universal law, that where there is an initial consonant the first vowel of the root-syllable forms the end of all that comes into consideration in reduplication. On the analogy of nominal forms like *kar-kara-s*, *mar-mara-s*, *μέρ-μερο-ς*, *βάρ-βαρο-ς*, Lat. *mar-mor*, *turtur*, an 124
Indo-Germanic **dar-darka*, an Indian **dar-darça*, a Greek **δερ-δορκα*, a Latin *mer-mordi* would be by no means inconceivable, but nothing of the kind is actually found. The reduplication of the perfect was weakened by frequent usage even in the earliest times; it was according to Fritzsche's happily invented expression a reduplicatio praefixa; it was justly felt to be a merely formal subsidiary syllable of the word, and for that very reason could not be allowed too much extension. For the perfect *da-darka* is the earliest deducible form, preserved in the Skt. *da-darça* and the Gr. *δέ-δορκα*. There is probably no exception to this fundamental rule. In the case of a single initial consonant, this one consonant of course appears in the prefixed syllable; still there are some few exceptions. It is true that in Greek there is none of that tendency to dissimulation, owing to which among the Indians the palatal consonants are used to replace the gutturals (*ka-kāra*, *ga-gama*). We could at most appeal to the gloss of Hesychius *ζέβυται· σέσακται*, which, considering the preference of the Arcadians for *ζ* as the representative of *β* (*ζέρεθρον*, *ζέλλω*, *ἐπιζαρέως*; Princ. ii. 96), we may perhaps ascribe to this tribe. Cp. Stud. vii. p. 390. On the other hand the aspirates are already treated like double letters, the first explosive element alone being repeated, and the aspiration being dropped in the syllable of reduplication. As Indians and Greeks agree in this point in spite of the different character of their aspirates, we may probably assume that this law had been established even in the time of the unity of language. Cp. the Indian perfect stem *dadhā*, 1 sing. *dadhāu* with the corresponding Greek *τεθε*, 1 sing. *τέθεικα*, *ba-bhūva* with *πε-φύα-σι* quoted above.

Where two full consonants appear at the beginning the process varies. The repetition of both consonants is not only unknown in Greek, but also in Sanskrit and Latin. It is only Gothic which feels no objection to such harsh forms as *skai-skaid*, *stai-stald*, *stai-stagg*. Perhaps we may therefore ascribe greater harshness in this respect to earlier periods of language. For Vedic Sanskrit the law of dissimilation which was framed to avoid an excess of similar sounds is given by Delbrück, 125
p. 102, as follows: 'If a root begins with more than one consonant the stronger is repeated, e.g. from *sk*, *sp*, *sth*, the *k p t*, of *sv*, *sm*, the *s*.' On the other hand the Greek law for verbal formation is:[1] 'the first at most is repeated.' The tendency to avoid too much repetition of the same sound in syllables immediately following each other may be noticed, as I have shown in the Principles, ii. p. 373, under other circumstances also. In those most familiar combinations of letters, which consist of an explosive followed by *ρ*, *λ*, *ν*, *μ*, the Indian and Greek laws lead to the same result. Compare:

Skt. *ta-trē* 3 sing. mid. from rt. *trā* protect and *τέ-τρῑγα*
„ *da-drus* 3 pl. act. from *drā* run and *ἀπο-δέ-δρᾱκα*
„ *pa-prā* 3 sing. act. from *prā* fill and *πέ-πλησ-μαι*.

[1] The Indian practice has analogies in Greek and Latin outside the sphere of verbal inflexion: *κα-σκαλίζω*, *κο-σκυλμάτια*, *qui-squiliae*.

In these combinations Gothic also agrees with both languages. Compare:

Goth. *gai-grôt* (*grêta* weep) and *γέ-γραφα*
„ *fai-flôk* (*flêka* lament) and *πέ-πληγα*
„ *fai-frais* (*fraisa* try) and *πέ-φρασμαι*.

On the other hand there is no trace in Latin of any form like **te-trūdi*, or **fe-frigi*, or **pe-pligi*. Erse, which is not very rich in reduplicated perfects, almost entirely agrees with Greek in the phonetic treatment of groups of consonants, as Windisch tells me, e.g.

ce-chlada-tar suffoderunt (rt. *clad*)
ge-graṅna-tar persecuti sunt (rt. *grand*).

But this language also allows reduplication in the case of *sc*, e.g. *se-scaing* (rt. *scag*), *se-scaind* (rt. *scand*).

But the Greeks did not always admit even this modest amount of reduplication. As is well known, the first of the initial consonants is only allowed, as a rule, in the reduplication-syllable when the stem-syllable contains the groups of consonants mentioned above as the
126 lightest of all. Thus *βέβληκα, βέβριθα, γέγραπται, δέδρομα, κέκλημαι, κέκραγα, τέτλᾰμεν, τέτμηκα, τέτροφα, τέθνηκα, πέπλευται, πέπραγα, πέπνυσαι*, are admitted. But even here there are exceptions. By the side of *βέβλαφα* established from Demosthenes and Aristotle, and the Homeric and Attic *βέβλαμμαι* we find in C. I. i. no. 1570 *a*, l. 51 *κατεβλαφότες*. Thuc. iii. 26 has the form *ἐβεβλαστήκει*, Eurip. Iph. Aul. 595 *ἐβλαστήκασ'*; in Plato Conv. 216 d. *γεγλυμμένος* is the well-established reading, but in Rep. x. 616 d. *ἐξεγλυμμένῳ*. In Ar. Thesm. 131 *κατεγλωττισμένον* follows the latter method. *τεθλασμένος* is quoted from the Middle Comedy (Alexis, Meineke's Comici, iii. 510) and from Theocritus (xxii. 45), *ἐθλασμένος* from Athenaeus xv. p. 699 e. Over against the prevalent *γέγραμμαι* we have in the ancient Elean treaty of alliance C. I. no. 11 *ἐγραμμένῳ*. Apollonius Rhodius, who has in iv. 618 the regular *κεκλῆισμαι*, ends the verse in iv. 990 with *τόθεν ἐκλῄϊσται*. The weaker formation is quite firmly established in the case of the rt. *γνω*: *ἔγνωκα, ἔγνωσμαι, ἐγνώρισμαι* as distinguished from the reduplication of the present in *γιγνώσκω* and *γίγνομαι*. In harder groups of consonants the fuller form is rare: hence *κέκτημαι, πέπτηκα* and *πεπτηώς, πέπτωκα* and *πέπταμαι* on the one hand and *μέμνημαι* on the other are quoted as exceptions. Here, too, bye-forms are not wanting: *ἐκτῆσθαι* is found in I 402, and occurs in Herodotus, Aeschylus, Plato, and Thucydides, though not without different readings; *ἀνέκτημαι· ἀνείληφα* Σοφοκλῆς is found in Hesychius, *κέκτημαι* appears first in Hesiod Opp. 437, and afterwards frequently in Attic writers. Over against the Homeric participle *πεπτηώς* is the Attic *ἔπτηχα* (cp. *ἐπτακέναι· κεκρυφέναι*), against the usual *πέπταμαι*, which compared with *πετάννυμι, ἐπέτασα* is marked by syncope, there is *ἀνεπταμένη· ἀνεῳγμένη* in Hesychius. We may add *πεπτερύγωμαι* Sappho p. 38 B[3], *πέπτυκται* Aristot. It is only in Byzantine writers that we find *πέφθακα*. On the other hand instead of the monstrous form **πεψυκώς* quoted in Veitch and Kuhner (p. 936), and said to be from *ψύχω*, we really find in Anthol. Pal. vii. 115, where we are told to look for it, *πεφυκώς*. In the combinations containing *σ, ξ, ψ*, and conversely *σκ, σχ, σπ, σφ, στ, σθ*, as in the case of *ζ* the reduplication of the perfect is limited exclusively to the

simple vowel, of which we have evidence in abundance from Homer onwards: ἐζευγμέναι Σ 276, ἐστεφάνωται Ε 739, ἐσφήκωντο Ρ 52, ἐξενωμένος Soph. Tr. 65, ἔψευσμαι from Herodotus, ἐψήφισται from Euripides onwards, ἐσκεδασμένος Her. iv. 14, ἐσκευάδαται ib. iv. 58, ἔσπαρται Eur. Herc. Fur. 1098 etc. Here we may notice the quite unparalleled ὑπεμνήμυκε X 491. Earlier grammarians generally regarded this process as an appearance of 'the augment' in the place of reduplication. Buttmann Ausf. Gr. i.[2] 314 expresses himself more prudently: 'the reduplication is represented by the simple ε.' But even he does not rigorously hold fast to this more correct view, and in the course of his statement he mixes up augment and reduplication. That the instinct of the language succeeded in distinguishing the ἑ of ἔσπαρται from that of the preterite ἔσπειρε is seen from the fact that the ε of the perfect is retained without exception in the infinitive and participle as well as in the rare forms of the moods, while the ε of the past tenses is limited to the indicative. The view that the ε in all perfect forms is to be regarded as a relic of a fuller reduplication syllable is especially confirmed by ἕ-στηκα. For here in the spiritus asper we have still the relic of the σ which on the analogy of ἵ-στη-μι and Lat. *sisto* as well as the Erse forms quoted on p. 358 must undoubtedly have been once present. In the case of all stems beginning with σ in combination with another consonant, the number of which is not small, and the example of which is certainly not to be esteemed as of slight importance for the other cases, it is natural to suppose that the history of their origin was as follows: that e.g. 127

*σε-σπαρ-ται *σέ-σπαρ-ται ἔ-σπαρται

were the three stages through which the corruption passed. I have put together some other analogies, of which the most important are ἴχλα by the side of κίχλα in Hesychius and ἕψω, ὄψον from the rt. πεπ are the most important, in Princ. ii. p. 375 ff. Brugman in Stud. vii. gives much other material for comparison. Of course this distinction in principle between reduplication and augment does not exclude the possibility that augmented forms like ἔζευξαι, ἐστεφάνωσαι, ἔσπειρε and other common words of the kind helped towards the reduction of the reduplication to a simple ε. Convenience of utterance readily avails itself of such supports to replace forms difficult to pronounce by easier ones. Even the treatment of the stems beginning with ρ, in which for other reasons augment and reduplication came to coincide in form, may not have been without its influence. 128

The special manner, in which stems beginning with a ρ were treated as regards the augment, occupied us on p. 77 f. I called attention there to the fact that 'many verbs beginning with a ρ can be shown to have lost a ϝ or σ.' The phenomena of reduplication are to be explained in the same way. Before the combination ϝρ reduplication was probably limited at an early period to a simple ε, so that hence from rt. ϝραγ (Principles ii. 159) *ε-ϝρωγ-α and the middle *ε-ϝρηγ-μαι were formed. By assimilation these became ἔ-ρρωγα, ἔ-ρρηγμαι. I cannot mention any trace of a ϝε-ϝρωγα, ϝε-ϝρηγμαι, which in themselves we might have imagined existing in the earliest times. Homeric verses like θ 137 ἀλλὰ κακοῖσι συνέρρηκται πολέεσσιν do not allow us to suppose a ϝ. Of the not very numerous verbs which form their perfect thus, we may deduce an initial ϝρ with certainty for ἐρρίζωται η 122, and with great

probability for ῥίπτω (ἔρριφα, ἔρριμμαι): cp. Princ. i. 437. The perfect εἴρηκα, mid. εἴρημαι stands quite by itself. As the rt. ϝερ shows the clearest traces of a ϝ in the present εἴρω (β 162 τάδε εἴρω), in the Lesb. βρήτωρ, and in the Elean ϝράτρα (Princ. i. 428), there can be no doubt that this sound was once present also in εἴρηκα. Only two points remain doubtful: first, whether we must assume as the immediately preceding stage ϝε-ϝρη-κα or ἐ-ϝρη-κα, the former on the analogy of ϝέ-ϝᾶδα, of which more hereafter, the latter on that of ἔ-γνω-κα: and as there are no certain traces of an initial ϝ in this perfect (Knös de digammo, p. 91) the second hypothesis is the more prudent, as we have just decided in the case of ἔρρωγα: secondly why this ἐ-ϝρη-κα did not become *ἐρρηκα as much as ἔϝρωγα became ἔρρωγα. Hardly any other answer can be given to this than that language elsewhere too wavers between doubling of the consonant and compensatory lengthening. ἔρρωγα is to εἴρηκα as ἐννοσίγαιος to εἰνοσίφυλλος and as ἐννέα to εἴνατος. After the augment of the passive aorist we find the same fluctuation: Att. ἐρρήθην, Ion. εἰρέθην (Her. iv. 77). For this reason it seems to me not advisable to assume for the explanation of εἴρηκα a form *ϝε-ϝερη-κα, conceivable as this is in itself, especially as εἰρήνη has probably come from ἐ-ϝρή-νη with a
129 prothetic ε. A. Bailly in the Memoires de la société de linguistique, i. 345 ff. has thoroughly discussed εἴρηκα and similar forms which will be treated of immediately. For ἐρρύηκα we may with certainty, for ἔρρωμαι with a certain probability, for ἔρραπται with perhaps still more probability assume an initial *sr.* (Princ. i. 440, ii. 333). The root of ἔρρῑγα (Ρ 175, Γ 353) is still doubtful, but the loss of a consonant before ρ is made probable by the Lat. *frīgeo* (Princ. i. 438). It is only in the root ῥαδ, which underlies the present ῥαίνω and meets us in ἐρράδαται υ 354, that we can find no trace of anything of the kind: ῥαδ seems rather to have come by metathesis from ἀρδ. In this case it must be assumed that this isolated form has been carried along with the others; analogies to this will be found in the case of other initial letters. Full reduplication before an initial ρ is extremely rare. In ζ 59 we read τά μοι ῥερυπωμένα κεῖται with the scholium: μόνος ἐστὶν οὗτος παρακείμενος παρὰ τῷ ποιητῇ ἀπὸ τοῦ ρ δεδιπλασμένου· ἔστι δὲ καὶ παρ' Ἀνακρέοντι τὸ 'ῥεραπισμένῳ νώτῳ.' The root of ῥυπόω is obscure: for ῥαπίζω, ῥαπίς, ῥάβδος we may probably give ϝραπ (Princ. i. 437). Here then every trace of the spirant had disappeared, just as in ῥερίφθαι quoted by grammarians from Pindar (Lyrici ed. Bergk[3] fr. 314). Similar anomalies from late writers, e.g. ῥέρευκα from Origen, are pointed out by Lobeck Paralip. 13.

Irregularities of a like kind show themselves sporadically in the case of an initial λ, μ and σ. Here the full reduplication which was to be expected is found from Homer onwards in a number of forms, some very common, as λελεκώς (Χ 141), λέλοιπε (Α 235), λελόγχασι (λ 304), μέμηλε (Β 25), μέμονα (Ε 482), and μεμάασι, μεμαώς, μέμυκεν (Ω 420), σέσηπε (Β 135), σέσεισται (Pind.), σεσήμανται (Herod.), σεσίγηται (Eurip.). But alongside of these we find a smaller number of abnormal perfect forms of two kinds, viz. on the one hand, such as are evidently parallel to ἔρρωγα: ἔμμορε, ἔσσυμαι, on the other hand forms which may be compared with εἴρηκα: εἴληχα, εἴληφα, εἴλοχα, εἵμαρται. The principle of explanation is supplied at once by this grouping. We see immediately that the syllable ει here too results from compensatory lengthening, and

that the forms with the doubled consonants are the older. But the attempt to explain the latter from assimilation after the example of the roots beginning with ρ is by no means so easy and successful as many 130
have thought. To begin with, the actual facts as regards these forms warn us to be careful in the assumption of consonants which might have been dropped before or after the letters μ, λ, σ. We have to deal with five verbal stems. We shall best get a general survey of the formations actually occurring if we range the similar forms under one another, putting the regular in the first column, those which double the consonant in the second, and those with ει in the third:

κατα-λελάβηκε (Herod. iii. 42)		εἴληφα (Attic from Sophocles onwards)
λελάβηκα (Eupolis, Archimedes)		εἴλημμαι ditto
ἀπο-λελαμμένοι (Herod. ix. 51)		εἴλᾶφα (late inscription from Phocis. Ahr. Dor. 347, 11)
λελημμένη (Aesch. Ag. 876)		
λέλαμμαι (Archimed.)		
λελᾰ́χασι (Hesych.)		εἴληχα (Attic from Aeschylus onwards)
λελόγχασι (λ 304, also Pind. Frag. Herod.)		
λέλεγα, λέλογα (Hesych.)		κατ-είλοχε · κατέλεξε Hesych.
		συν-είλοχα (Demosth.)
προ-λελεγμένοι (N 689, Ar. Vesp. 886)		ξυν-είλεκται (Arist. Av. 294, also Thuc. Plat. etc.)
ἀπο-λελεγμένοι (Herod. vii. 40)		δι-είλεγμαι (Plat. Lys.)
λέλεκται (= εἴρηται universally)		
μεμορμένον (Apoll. Rhod. iii. 1130)	ἔμμορε O 189, λ 338, Hes.	εἵμαρτο (Φ 281, Hes. Th. 894)
μεμόρηται (ib. i. 646)	ἐμμόραντι Hesych.	εἵμαρται (Attic from Aeschylus onwards).
	ἔσσυμαι N 79	
	ἐσσυμένος, ἔσσυτο } Homer and other poets	

Cp. ἐσσοημένον · τεθορυβημένον, ὡρμημένον Hesych.

There is absolutely no support for a lost consonant in the case of the 131
roots λαβ, λαχ, λεγ, as has been shown in Princ. ii. 144, 111, i. 454. ἔμμορε and εἵμαρται have been compared with the Skt. rt. *smar*, think, and an indication of their connexion has been found in the rough breathing of εἵμαρται, which would thus be from *σε-σμαρ-ται. But the difficulty in the way of this combination has been already pointed out in Princ. i. 413. This yerb is connected rather with a rt. μερ divide (μέρος, *merere*) the meaning of which is far removed from that of thinking. The dialectic forms ἔμβραται · εἵμαρται Hesych., ἐμβραμένα · εἱμαρμένη Hesych. and E. M. p. 334, 40,[2] ὤβρατο· εἵμαρτο Hesych., are also to be taken into account. Besides, we cannot deny the appearance in other instances also of a rough breathing of later origin. For σεύω (Princ. i. 475) the loss of a spirant after the σ cannot be proved with certainty, in spite of ἔσσευα. The key to all these perfects is hence doubtless to be sought in *metathesis*, a notion which has been established by Brugman

[2] ἐμβραμένα, Παρὰ Σώφρονι ἡ εἱμαρμένη. Καὶ Λάκωνες οὕτω λέγουσιν.

Stud. iv. 102, 124, and Siegismund v. 211, following Pott Et. Forsch. ii.[2] 389. Bailly is of the same opinion for a part of the verbs. From *λέ-ληφα, *λέ-ληχα, *λέ-λεγμαι, *μέ-μορε, *σέ-συ-μαι came *ἐλέ-ληφα etc. by the prefixing of an irrational initial ἐ, then by the suppression of the second vowel *ἔλληφα, ἔμμορε, ἔσσυμαι, and finally in the case of some verbs at a later date, when the first λ gave up a part of its 'voiced sound' to the preceding vowel, εἴληφα, εἴληχα, εἴλοχα, εἵμαρται. Hence ἔμμορε is to εἵμαρται much as the Lesb. aor. ἔνεμμα is to the Attic ἔνειμα. Following this view, one might be inclined to hold even that ἔλλαβε (explained otherwise on p. 78) was a metathesised *λέλαβε (cp. λελαβέσθαι) and that ἔμμαθε came from *μέμαθε.

In the following perfects ε appears as the syllable of reduplication before vowels. It has long been recognised that this anomaly, like the syllabic augment before vowels, is to be explained from the dropping of a spirant, to which in the case of reduplication was added later on the loss of the same letter at the beginning. As in the case of most of the stems which belong here, the original initial letter was pointed out on p. 79 f., we may content ourselves here with a brief statement. We have to do with the following forms:

132 1) ἔᾱγε Hes. Opp. 534 ἐπὶ νῶτα ἔαγε; then in Attiç poets and Plato: κατεαγότες C. I. A. ii. 61, 42, κατεαγότα Herod. vii. 224. The initial digamma may still be detected in Sappho 2, 9 γλῶσσα ἔαγε, where Bergk on the analogy of Lesbian instances to be mentioned immediately conjectures γλῶσσ' ἐΰαγε.

2) ἔᾱδα I 173 τοῖσι δὲ πᾶσιν ἑαδότα μῦθον ἔειπεν; then in Alexandrine writers. The stem expanded by ε has retained its ϝ among the Locrians ϝεϝαδηϙότα inscript. of Naupactus (Stud. ii. 445) l. 38.

3) ἐάλωκα. εὐάλωκα was quoted on p. 79 as a certain proof of the digamma; ἐάλωκα is Attic from Aeschylus onwards, while Pind. Pyth. 3, 57 uses ἅλωκα, and ἥλωκα occasionally makes its appearance in Herodotus and Attic writers, generally with the variant ἐάλωκα.

4) ἔελμαι. Ω 662 κατὰ ἄσυ ἐέλμεθα, N 524 Διὸς βουλῇσιν ἐελμένος. There is the plupf. ἠέλμεθα· συνήμμεθα Hesych. and ἐόλει Pind. Pyth. iv. 233 (Boeckh), and with a stem expanded by ε ἐόλητο Apoll. Rhod. iii. 471, to which belongs ἐόληται· τετάρακται, and ἐύλητο· ἐπέφυρτο, ἐτέτακτο Hesych.

5) ἐεργμένοι Ε 89 γέφυραι ἐεργμέναι ἰσχανόωσιν. This verb was passed over in treating of the augment, because even in forms without the augment or the reduplication there are traces of a double ε: Apoll. Rhod. iv. 309 ἐέργεται, so that the ε may possibly be of the same kind as in ἔεδνα. But the ϝ is well established. Cp. Princ. i. 222.

6) ἐερμένος. σ 296 ἠλέκτροισιν ἐερμένον; and also ἔερτο· ἐκρήμνα Hesych. Cp. ἤειρε p. 81.

7) ἔεστο (M 464) may find a place in our list here, though it is possibly not for ϝε-ϝεσ-το, but for ἐ-ϝεσ-το, being thus a past tense from the unreduplicated ϝέσ-μαι, ἔσ-μαι (3 sing. ἐπίεσται, oracle in Herod. i. 47).

8) ἔοικα, common from Homer onwards: he has also ἔῐκτον δ 27, ἐΐκτην A 104 and the middle forms ἤικτο υ 31, ἔικτο Ψ 107. The ϝ is probable, but not certainly established. Cp. Princ. i. 309.

9) ἔολπα in Homer, Hesiod and Alexandrine poets: X 216 νῦν δὴ νῶϊ γ' ἔολπα, Υ 186 χαλεπῶς δέ σ' ἔολπα τὸ ῥέξειν, plupf. ἐώλπει φ 96. Here as in no. 5 the double vowel extends itself also to forms like ἐέλπεται

N 813, *ἐελποίπην* Θ 196, in which the first *ε* can only be a prothetic 133
vowel. For the origin of the verb see Princ. i. 328.

10) *ἔοργα*. Γ 27 *ὅσσα ἔοργας*. The plupf. *ἐώργει* ξ 289 was discussed on p. 81. Cp. p. 86. Herodotus also has the form *ἐόργεε* i. 127.[3]

11) *ἐούρηκα* (Hippocr. *οὔρηκα*) has been already discussed p. 80, and quoted from Aristophanes.

12) *ἐώνημαι* in Aristoph., Plato, Lysias, Demosthenes with the plupf. *ἐώνητο*, Aristoph. Pax 1182 *τῷ δὲ σιτί' οὐκ ἐώνητ'*. Cp. p. 80. An active *ἐωνηκώς* is quoted from Lysias in Bekker's Anecd. p. 95, 25.

13) *ἔωσμαι* (Herod. *ὦσμαι*). Thuc. ii. 39 *ἀπεῶσθαι* and similar forms elsewhere in Attic prose. Plutarch has also *ἔωκα*.

Two perfects have distinctive peculiarities of the same kind as those mentioned on p. 81, viz.

14) *ἀν-έφγα*, quoted from Hippocrates and post-Attic writers, *ἀνέῳχα* from Demosthenes and Menander, *ἀνέῳγμαι*, *ἀνεῴγμην* common from Euripides (Hippol. 56 *οὐ γὰρ οἶδ' ἀνεῳγμένας πύλας*) onwards, with the un-Attic bye-forms *ἤνοικται*, *ἠνοίκτο*.

15) *ἑώρακα* with pluperfect forms (*ἑωράκεσαν* Thuc. ii. 21) common in Attic prose, with *ἑώραμαι* since Isocrates. With a short second syllable in Aristoph. Thesm. 33 *οὐχ ἑόρακας πώποτε*. The root is *ϝορ*, Princ. i. 432.

In both verbs the interior strengthening is the result of a transference of quantity. It is different with

16) *εἴωθα*, from Homer onwards (E 766 *ἦ με κάκιστ' εἴωθε κακῇς ὀδύνῃσι πελάζειν*) though he has also the form *ἔωθα*, which is usual in Herodotus: Θ 408 *αἰεὶ γάρ μοι ἔωθεν ἐνικλᾶν ὅττι κεν εἴπω*. After Homer's time there is also the plupf. *εἰώθειν*, in Herodotus *ἐώθεα*. The first letter of the root was discussed on p. 85: *εἴωθα* is from an original *ἐ-σϝοθα*. The diphthong is due to compensatory lengthening for the *σ* 134
which has been lost before *ϝ*, so that *ἐ-σϝοθα* became in the first instance *εἰ-ϝοθα*, while the *ω* is due to the influence of the *ϝ*. Cp. Brugman Stud. iv. 170. With regard to the Æolic *ἐνέθωκα* i.e. *ἐ-ϝέθω-κα*, where the loss of the *σ* has left no trace behind, we may refer to p. 85.

Finally in the following perfects the reduplication syllable can only be recognised from the contraction. The case is quite like that discussed on p. 83, where the syllabic augment lay hidden in the syllable *ει*, only with the difference, that the perfects have lost a spirant not merely after, but also before the *ε*. *εἰλίσσετο* goes back to an earlier *ἐ-ϝελίσσετο*, *εἵλικται* to *ϝε-ϝέλικται*.

1) *εἵακα*, *εἵαμαι*, quoted from Demosthenes (8, 37; 45, 22). In opposition to what was conjectured on p. 84 as to the origin of this verb, attempts have been made from two different sides, and in a somewhat inconsistent manner to prove that *ἐάω*, in which verb the loss of a *ϝ* after *ε* is quite certain, comes from **σεϝαω*. S. Bugge in Fleckeisen's Jahrb. vol. 105 p. 95 compares *ἐϝαω* with the Lat. *de-sivare* desinere, recorded

[3] *ἔορτα(ι)· ἔδοξε, κρεμνᾶται* (better *κρημνᾶται*) Hesych. looks like a perfect. Lobeck Rhem. 124 suggests *ἄραρε* and the like, but from the root *ἀρ* we cannot get to syllabic reduplication. Can we suppose that in this form there is concealed the rt. *var* choose, to which *αἱρέω* belongs (Princ. ii. 180)? The Homeric *ἐπὶ ἦρα φέρειν* would well suit this view, and also the following gloss in Hesych. *ἑορτάς· ἀρεσκούσας, καλάς*, where *ἑ* would in that case be prothetic. As for *κρημνᾶται* this explanation has long since been referred to *ἧρται*, confused with *ἔορται*, to which the Homeric *ἄωρτο* is the plupf.

in Paulus Epitome p. 72, deducing from this a simple verb *sivare* identical with **σεϝαω*. Leo Meyer Ztschr. xxi. p. 472 f. adopts this combination, so far as it is given here, and finds in it a confirmation of the view that he had previously expressed, that **σεϝαω* goes back to a primitive form **savajāmi*, which proceeds from the rt. *su* 'excite, send,' preserved in Sanskrit. The meanings of this root as they are now given in the Pet. Dict. certainly do show some points of connexion with the usage of *ἐάω*, the meanings given for *pra-su* e.g. being 'call, occasion, allow, give up.' But after all the link is but a weak one, so far as meaning goes. Hence even if we may describe this comparison as phonetically legitimate, and make the further admission that forms like *εἰῶσι* and the like, the existence of which in our texts Leo Meyer holds it superfluous even to mention, may possibly be mistakes for *ἐόωσι* and the like, still we cannot anyhow talk of certain proof. But in no case can the Latin word be connected at the same time with *sinere* and with the
135 rt. *su*, and it seems hardly conceivable that *desivare* is wholly without any etymological connexion with the completely equivalent *desinere*. Hence although the *εἰ* of the past as well as the perfect would thus find a satisfactory explanation, I keep for the present to my 'non liquet.'

2) *εἴθικα*, established from Xenophon and Plato, *εἴθισται* and the pluperfect *εἴθιστο* from Thuc., Aristoph., Eur. etc., justifies its *ει* by what was said under *εἴωθα*.

3) *εἶκα*, *εἶμαι*, used especially in compounds from Aeschylus onwards, by Attic writers both in prose and verse, and also by Herodotus, along with the plupf. *εἵμην*, is explained from the origin of the rt. *ἑ=ja* discussed on p. 80. This derivation has since been contested by Leo Meyer Ztschr. xx. 353 ff. with the fiery zeal which is all his own; but though this scholar maintains that '*ἵημι* and all that belongs to it show very plainly that they begin with a vowel in the language of Homer,' I should adduce the syllabic augment of *ἕηκα* and the *ει* of *παρείθη* Ψ 868 as a proof of the contrary. The post-Homeric forms with *ει* (*εἴθην*, *εἶκα*, *εἶμαι*) lead to the same results. Hence I do not see with what justice it can be denied that this root originally began with a consonant.

4) *εἰλιγμένος* Hes. Theog. 791, then in Attic from Euripides onwards *εἴλικται*, *εἵλικτο* etc. But as the diphthong is not unknown to the present either, as we saw on p. 85, it cannot be decided whether the *ει* of the perfect has come from *ϝε-ϝε* or from a prothetic *ε* followed by *ϝε*. The Homeric *εἰλυμένος* E 186 with fut. *εἰλύσω* and *ἐλυσθείς* ι 433 would in the latter case offer the nearest parallels.

5) *εἶμαι* from the rt. *ϝες* clothe *τ* 72 *κατὰ δὲ χροὶ εἵματα εἶμαι*, λ 191 *εἶται*, Σ 596 *εἵατο*, Υ 381 *εἱμένος* (*κατα- ἐπι-*) with the unreduplicated *ἕσσαι* (*ω* 250), *ἐπίεσται*, plupf. *ἕσσο*, *ἕστο* (*ἕεστο*), *ἔσθην*. Cp. above p. 362, no. 7. *εἶμαι* might be for *ϝεσ-μαι* like *εἰμί* for *ἐσ-μι*, but this explanation of the diphthong does not suit the 3 sing. *εἶται*.

6) *εἴργασμαι*, Attic from Aeschylus (Ag. 354 *χάρις γὰρ οὐκ ἄτιμος εἰργασται πόνων*) onwards, in Herod. *ἔργασται*, plupf. *εἰργάσμην* Thuc., in Herod. *ἐργάσμην*. Cp. p. 86.

7) *εἶρκα* from *εἴρειν* serere Xenoph. Cyrop. viii. 3, 10 *ἐνειρμένος* Herod. iv. 190 Stein, with the variant *ἐνερμένος*; cp. the Homeric *ἐερμένος* p. 362, no. 6.

136 8) *εἰρύαται* from *ἐρυ* i.e. *ϝερυς* draw (Stud. vi. 265 ff.) Ξ 75 *νῆες ὅσαι πρῶται εἰρύαται ἄγχι θαλάσσης*, N 682 *θὶν' ἐφ' ἁλὸς πολιῆς εἰρυμέναι*,

θ 151 *νηῦς τε κατείρυσται*, with the forms of the plupf. Σ 69 *εἴρυντο*, Ξ 30 *εἰρύατο*.

9) *εἰστίακα*, *εἰστίαμαι* good Attic, cp. p. 86.

B) Reduplication where the Stem begins with a Vowel.

With an initial vowel there are two possibilities for reduplication. Either the initial vowel alone was repeated, which then however always remained the same as the vowel of the stem-syllable, and did not, as with an initial consonant, sink to *ε*. There is evidence of the possibility that both vowels existed independently for a time side by side in Gothic perfects like *ai-alth*, *ai-aik*, *ai-auk*, which may be compared in respect of their form with *ἰ-άλλω*, *ἴ-ανθ-ο-ν* (Fritzsche Stud. vi. 325). Hence for the root *ad* eat we may probably presume a form *a-ād-a*. In Sanskrit we find only forms like *āda* (cp. Lat. *ēdī*); and as in Greek the vowel of such perfects is only distinguished from the initial vowel of the stem by its length: Dor. *ἄλλαχα*, Hom. (*ἐφ-*)*ἦπται*, we shall have to assume, as in the case of the temporal augment (p. 87) that the rule for this reduplication was framed before the splitting of the vowel. For such forms cannot be explained from the contraction of a syllable *ἐ-*. The Indian perfect knows only this kind of reduplication: rt. *ar* raise, has in the perfect *āra*. There are no Italian perfects either of any other formation from the roots here in question. On the other hand Greek possesses a second fuller formation of the reduplication-syllable, which is known by the name of Attic reduplication. It consists in the repetition of the initial vowel along with the consonant which follows it. We actually find as against the Vedic *āra* (i.e. as it were **ῶρα*) a Greek *ὄρ-ωρα*. This reduplication is called Attic doubtless only, as Buttmann Ausf. Gr. i.² 327 saw, because it here and there (e.g. *ἧλεσμαι* for the old *ἀλήλεσμαι*, *ἧρεισμαι* for *ἐρήρεισμαι*) had disappeared from the usage of the later Greeks, and hence was to be recommended as a good and genuine Attic formation. Noun-formations, which are based upon the same principle, are collected by Fritzsche l. c. p. 287. Many, like *ἀγαγύρτης*, *ἀλάλαγξ*, *ὀδοδυσταί*, are connected with kindred verbal forms, but others 137
like *ἔπ-υψ=up-upa*, *ὀλ-ολ-ύζω* by the side of *ululare* have arisen independently. Viewed precisely the primitive form of the first method of reduplication, e.g. *a-ara* or *a-āra*, is related to the second e.g. *ar-āra* exactly as the less complete in the Lat. *me-mor* to the more complete in *μέρ-μερα* (*φροντίδος ἄξια* Hesych.). If we count in the initial smooth breathing, the reduplication-syllable in each of the two cases of the second series contains three elements, in each case of the first it contains two. We have met with the same process already in the reduplicating aorists, where forms like *ἀγ-αγεῖν*, *ἧκαχε*, *ἧραρον*, *ὧρορε* occur. In this instance it is not unknown to Sanskrit. Delbrück p. 111 quotes from the Vedas *ām-ama-t* from *am* damage, and with a weakening of the second *a* to *i* *ān-ina-t* from rt. *an* breathe, *ārd-ida-t* from rt. *ard* (causative =shatter), which are only recorded by the grammarians (cp. above p. 290). From Zend Bopp Vergl. Gr. ii.² 529 quotes the 3 pl. perf. *ir-īrith-arē* from the stem *irith* dissolve, as an isolated kindred formation.

The Greek perfect formation is separated from that of other reduplicating tenses by delicate distinctions. Here the distinction lies in the rhythm. The aorists leave the stem-syllable short: *ὧρορε*; the perfects

bring it out vigorously by its length: ὄρ-ωρε. The rule for the perfect has an unmistakeable analogy with the manifold lengthenings, by which in compound words the beginning of the second constituent is brought into prominence: ποδήνεμος, ὑπώρεια, ἀνώνυμος. Even Bopp, Vergl. Gr. ii.² 529, refused to regard the long vowel after the earlier fashion as 'augment'; and it cannot be taken as a temporal reduplication in addition to the syllabic, especially as it reappears, as Bopp also pointed out, just as much in nominal forms like ἀγωγή, ἀκωκή, ἐδωδή. The long vowel agrees besides with the extensive tendency of the Greek perfect to prefer a long stem-syllable, which we shall have to treat at greater length further on. In the feminine of the participle the short vowel is preferred, so that ἀραρυῖα is not distinguished in rhythm from ἀραρών. The carrying out of this rhythm of the perfect is, it appears, specifically Greek, while
138 evidently the kind of reduplication here under discussion belongs in its origin to an earlier period of language. There is not, however, perfect consistency with respect to quantity, as is shown by ἀκάχημαι and ἀκηχέδατο, ἀλάλημαι, ἀλαλύκτημαι, ἐρέριπτο. The need of bringing into definite prominence the essential *differentia* of the perfect gave the impulse to this specifically Greek expansion of old germs. We saw on p. 356 how in another direction also the Greeks extended this *differentia* further than the limits which can be demonstrated from other languages.

As we now turn to the task of giving a list of the perfects with Attic reduplication, we are met by two facts in the chronology of the language, which have hitherto received but little notice. The first concerns the relation of these perfects to those in Homer which are characterised merely by a long vowel, the second the nature of the stems in which this kind of reduplication is effected, and the closely connected question as to the antiquity of this method of formation, regarded from the point of view of the more general history of the Indo-Germanic languages. If I may trust my collections, there are in the Homeric poems only 25 perfects from stems beginning with a vowel. Of these 19 show the Attic, 6 at most the ordinary reduplication. The former will be given later on along with the later formations of the same kind: the 6 with the ordinary reduplication are: κατήκισται π 290, τ 9, ἐφ-ῆπται Β 15 and frequently elsewhere, with ἐφῆπτο Ζ 241 and ἀν-ήφθω μ 51, 162, ἧσκηται Κ 438, with ἐπήσκηται ρ 266, ἠσχυμμένος Σ 180, ἀφ-ῖχθαι ζ 297, perhaps ἴσασι Ι 36, for the long ι can hardly be understood otherwise, ἐπῴχατο Μ 340 with παρῴχηκεν or παρώχῳκεν Κ 252 with the variant παροίχωκεν, which has good support from the Alexandrine time, and probably deserves the preference. The cases in which reduplication is entirely omitted with an initial vowel, like οὔτασαι, ἀδηκότες will have to be discussed later on, along with the same phenomenon in the case of stems beginning with a consonant. From the point of view of the Greek language we might thus be led to the opinion that the method of formation which was afterwards widely employed, was in Homer's time
139 something novel. But a glance at the universal rule in Sanskrit is enough to show us that in this case the language of Homer does not in the remotest degree reproduce the original. The perfect is in epic poetry generally not a very common tense. This is the main reason why the instances are so few. It is only in Attic, as will be seen repeatedly, that the perfects were freely formed, and that too especially in later times. Besides, most of the forms with an initial vowel have come from derived

stems, in part unknown to the Homeric poems, like *ἤγγελται*, *ἠδίκηκα*, *ὠμολόγηκα*, *ἠρώτηκα*, *ἠξίωκα*, *ἐξήτασται*, *ὔβρικα* etc. In view of the increased needs of later times, long after Homer a rich abundance of such forms was produced in imitation of a not very numerous stock of primitive creations. But it is worth noticing that what is the rule later on, in Homer appears as the exception.

If we ask now in the second place in what sort of stems the Attic reduplication appears, there is no lack of very ancient ones among their number, and it is quite what we should expect to find these in Homer. Among such perfects proceeding from roots are *ἀκαχμένος*, *ἄρηρα*, *ἔδηδα*, *ὀδωδα*, *ὄλωλα*, *ὄπωπα*, *ὄρωρα*. But the great majority of the perfects with Attic reduplication came from disyllabic stems, and betray thereby their relatively late origin. The disyllabic stem has originated either by prothesis as in *ἀγερ* (*ἀγηγέρατ'* Υ 13) *ἀλιφ* (*ἀλήλιφα*), *ὀρεγ* (*ὀρωρέχαται* Π 834), and probably also in *ἐνεγκ*, *ἐριπ*, or by evident expansion of the stem, as in *ἐλ-υ-θ* (*ἐλήλυθα*, Hom. *εἰλήλουθα*), *ἀρ-ε* (*ἀρέσκω*, *ἀρήρεκα*), *αἱρε* (*ἀραιρηκώς* and even *ἀναιραιρεμένος*) or by unmistakeable secondary formation as in *ἀλάλημαι*, *ἀλαλύσθαι*, *ἀλαλύκτημαι*, *συν-αρήρακται* (*ἀράσσω*), *ἀρηρομένη* (*ἀρόω*), *ἐλήλιγμαι* (*ἐλίσσω*). In the case of two verbs we can prove that there was once a digamma: *ἐμήμεκα* (cp. Skt. *vam*, Lat. *vomo*), and *ἐλήλιγμαι* (rt. *ϝελ*) already mentioned. Some stems e.g. that of *ὄμνυμι*, *ὀμώμοκα*, that of *ὀρύσσω*, *ὀρώρυχα*, of *ἐλέγχω* *ἐλήλεγκται* and of *ἐρείδω* *ἐρηρέδαται* remain obscure, but these too do not at all look as if they were particularly old. The curious and perhaps justly suspected forms given by the Et. M. p. 372, 42, *ἐρηρό·ηκα* (from *ἐρωτάω*) and *ἐρητόμακα* (from *ἑτοιμάζω*) give us the extreme in- 140
stances. In short, the result at which we arrive is that the great majority of these forms, and among them not a few which are found in Homer, have been created in imitation of a few old forms by the luxuriant productive force of the Greek language. What Windisch Ztschr. xxi. 410 has already remarked as to this method of formation is thus completely confirmed. The Attic reduplication has therefore a special interest as bearing on the history of language. It shows us what the Greeks were capable of at a comparatively recent time, and may serve as a warning not to go too far in explaining Greek forms from pre-Greek models. The Homeric language, in which many at every step conjecture reminiscences from the grayest antiquity, evidently is in the middle of this period of recent imitation. We may here as in other cases cast our eyes back from Homer to a still earlier poetry, which was actually creative in moulding characteristic forms of language.

The established instances of Attic reduplication are as follows, Homeric examples being marked with an asterisk:

1) **ἀγηγέρατ'* (plupf.) Δ 211, Υ 13; other forms, like *ἀγηγερμένος*, *ἀγήγερκας* are not quoted from any author earlier than Appian. Cp. on no. 17 *ἐγείρω*.

2) *ἀγήοχα*, first in Aristotle (*συναγηόχαμεν* Oecon. B p. 1346, a, 28) and in the spurious documents in the speech De Corona (39, 73), *ἀγηόχει* in Polybius, *συνηγηόχει* · *ἐκόμισε* Hesych., *συναγάγοχα*, inscription from Thera, C. I. 2448, ii. 10, *συναγαγοχεῖα*, i. 28.

3) **ἀκάχημαι* *θ* 314, *ἀκηχέδατ'* Ρ 637, *ἀκαχείατο* or *ἀκαχήατο* Μ 179, *ἀκηχεμένη* Ε 364. The reduplication in this case extends very far, for *ἀκάχοντο*, *ἀκαχίζω*, *ἀκηχεδόνες* · *λύπαι* (Hesych.) are quoted.

4) *ἀκαχμένος common in Homer, e.g. O 482.

5) ἀκήκοα common from Aeschylus (Pr. 740) and Herodotus onwards.

6) *ἀλάλημαι Ψ 74, ἀλάλησο γ 313, ἀλάληντο also Eur. Andr. 306 (chor.).

7) *ἀλαλύκτημαι K 94.

141 8) ἀλάλυκτο from the Hom. ἀλύσσω Quint. Smyrn. 13, 499; 14, 24.

9) ἀλαλύσθαι · φοβεῖσθαι, ἀλύειν Hesych.

10) ἀλήλεσμαι Herodot. vii. 23, Thuc., ἀληλεκέναι Nicarchus Anthol. xi. 251.

11) ἀλήλιφα Demosth. ἀληλιμμένος Thuc. iv. 68.

12) ἀραιρηκώς, ἀραιρήκεε, ἀραίρηται, ἀραίρητο Herod., ἀναιρερημένος by itacism for ἀν-αιρ-αιρη-μένος inscription from Thasos, discussed by Bergmann Hermes iii. 238. On the other hand there is ᾕρηκα, ᾕρημαι from Aesch. and Thuc. onwards.

13) *ἄρᾱρα Pind., conj. ἀρήρῃ ε 361, ἀρηρός Λ 31, ἀραρνῖα O 737 and often. In Aesch. (Prom. 60) and Eurip. there are isolated forms of the kind. ἀρηρεμένος Apoll. Rhod. iii. 833 (for which Quint. Smyrn. has ἀρηραμένος). προσαρήρεται (conj.) Hes. Opp. 431, ἠρήρειντο Apoll. Rhod. iii. 1398.

14) συν-αρήρακται · συγκέκοπται Hesych.

15) ἀρήρεκεν quoted from Sext. Emp. ed. Bekker p. 652, 29.

16) *ἀρηρομένη Σ 548, Herod., ἀρήροτο Apoll. Rh. iii. 1343.

17) *ἐγρηγόρθᾱσι K 419, 2 pl. imp. ἐγρήγορθε [H 371 etc.], inf. middle, ἐγρήγορθαι K 67, from Aesch. onwards ἐγρήγορα (ἐγρηγορώς Eumen. 685), ἐγρηγόρειν common in Attic prose. [Cp. Lobeck on Phryn. p. 119.] The way in which we regard the reduplication in this verb depends upon the question how we explain the ἐ in ἐγείρω, whether as the remains of the doubling preserved more completely in the Skt. *jā-gar-ti* he wakes (Princ. i. sub voc.) or as a prothetic vowel (Fritzsche Stud. vi. 322). In the former case ἐ-γρή-γορ-α would be twice reduplicated, like δε-δί-δαχ-α, only that the perfect reduplication made itself visible in the second syllable, in the latter ἐ- in the perfect would also be prothetic; in both cases we should have to explain γρή-γορ-α as by metathesis from γερ-γορ-α (Siegismund Stud. v. 169). The adoption of the ρ into the reduplication-syllable is in any case very singular, for we should have expected *ε-γέ-γορα or *ἐ-γή-γορ-α. Hence the forms quoted have, strictly speaking, only the appearance of Attic reduplication: a remark which also holds good for no. 1. We cannot however doubt that to the instinct of the language all these words seemed formed alike.

142 The long vowel of the second syllable proves this. I have discussed in Stud. vii. 393 the trace of a Laconian regularly reduplicated ἰηγορεῖν · ἐγρηγορέναι.—The form ἐγ-ήγερ-μαι recorded from Thuc. (vii. 51) onwards (with ἐγ-ήγερ-κα in the post-Attic period) is more regular than the active form.

18) *ἔδηδα, κατὰ ταῦρον ἐδηδώς P 542, ἐδηδυῖαι Hymn. in Merc. 560. ἐδήδοται χ 56, ἐδήδοκα Attic prose, with the mid. ἐδήδεσμαι.

19) *ἐλήλαται Π 518, ἠλήλατο E 400, ἐπελήλατο N 804, ἐληλάδατ' η 86, with the active ἐλήλακα and the corresponding plupf. from Herodotus onwards.

20) ἐλήλεγμαι occurring from Antiphon onwards, with its plupf.

21) ἐληλιγμένος Pausan. x. 17, 6, but everywhere else from Hesiod onwards εἵλιγμαι.

22) *ἐλήλυθα. ἀπελήλυθα Ω 766, ἐπελήλυθα δ 268, then in Herodotus and Attic writers. The expanded Homeric form εἰλήλουθα E 204, A 202 etc. (with ἐληλουθώς O 81) is altogether abnormal. I do not know that any attempt has ever been made to explain the diphthong ει.

23) ἐμήμεκα, ἐμήμεσται from Lucian and Aelian, the plupf. ἐμημέκεε quoted from Hippocrates.

24) ἐνήνοχα common in Attic prose, with the mid. ἐνήνεγμαι, Herod. viii. 37, ἐξενηνειγμένα.—Hesychius gives the regular form κατήνοκα · κατενήνοχα.

25) *ἐρηρέδαται Ψ 284, ἐρηρέδατ(ο) η 95, ἠρήρειστο Γ 358, ἐρηρεισμένος Herod. iv. 152. The active ἐρήρεικα is post-Attic :—ἤρεικα, ἤρεισμαι occur from Polybius onwards.

26) ἐρηριγμένος Aristot.

27) *ἐρέριπτο Ξ 15 ; post-Attic ἐρήριπται, ἐρήριπτο.

28) *ἐρήρισται from ἐρίζω Hes. fr. 219 τῷ δ' οὔτις ἐρήρισται κράτος ἄλλος.

29) *ὀδώδει ε 60, ι 210, and afterwards similar forms in post-Attic writers, ὤδωδε · σέσηπεν (probably ὠδώδει · σεσήπει), ὤζεσεν.

30) *ὀδώδυσται ε 423, ὤδυσται · ἠχθέσθη Hesych.

31) *συν-οκωχότε · ἐπισυμπεπτωκότες Hesych. In our M.SS. at B 218 there is συν-οχωκότε which Buttmann i.[2] 331 derives from the former by a transference of the breathing from assimilation to ἔχω. The chief support for this view is to be found in the substantives ὀκωχή, συνοκωχή. while we may also very easily get from ὀχέω to a by-form ὀχόω, and 143
thence to a regular *ὤχωκα and without reduplication ὄχωκα. Cp. ἐποχημένος Nonn. viii. 229.

32) *ὄλωλα Π 521 and often elsewhere in Homer and afterwards common, plupf. ὀλώλει K 187 etc., ὀλώλεκα from Herodotus onwards.

33) ὀμώμοκα, ὀμώμοται or ὀμώμοσται from Eurip. onwards.

34) *ὄπωπα Z 124 etc. ὀπώπει φ 123, both thenceforward in poets and Herodotus.

35) *ὄρωρε H 388, ὀρώρει Θ 59, plupf. also in the tragedians, ὀρώρηται conj. N. 271.

36) *ὀρώρει only in Ψ 112, plupf. from a presumable ὄρωρα from the rt. ϝορ, pres. ὄρομαι : cp. Lobeck on Buttmann ii.[2] 260, Princ. i. 430.

37) *ὀρωρέχαται Π 834, ὀρωρέχατο Λ 26.

38) ὀρώρυχα Pherecr. (Com. ii. p. 327 v. 19), ὀρώρυκται Herod. iii. 60, with ὤρυκται ii. 158 (?), ὀρώρυκτο from Herodotus onwards.

39) ὑφήφασται, quoted by Herodian ed. Lentz ii. 950 : οὐδεὶς Ἀττικὸς παρακείμενος ἀπὸ τοῦ υ ἄρχεται, ἀλλὰ μόνος ὁ ὑφήφασται (cp. Suidas s. v. ὑφήφανται Bekk. Anecd. 20). On the other hand ἐννυφασμένος Herod. iii. 47, and the like in Xenophon and Antiphanes, Com. iii. p. 52. The Et. M. gives ὑφύφασται, which certainly diminishes the authority of the former form, already attacked by Lobeck ad Phryn. p. 33. I have attempted in Princ. i. 369 an explanation, by referring ὑφ-ηφ to the rt. *vabh* O. H. G. *wëban* ; ὑφ would then be an early weakening of ϝαφ, in the second syllable the fuller form would be preserved, but with the loss of the ϝ. We met with something similar above p. 292 in the reduplicated aorist. In Sanskrit the syllable *va* is reduplicated by *u*, e.g. in *u-vāka*. Under any circumstances the form is singular.

C) Loss of Reduplication.

It is hardly probable *a priori* that such an essential characteristic as reduplication could be simply lost. A prominent feature of Greek formations throughout is the retention of all significant elements. Even in recent formations we have just seen that the tendency to reduplication continues to be living. But as in the case of the augment so in reduplication there is an essential distinction between forms beginning with a
144 consonant and those beginning with a vowel. It is only in the latter, which indeed for the most part exclude any prominence of the sign of the perfect, as well as of the preterite, as a distinct syllable, that the loss of the reduplication is at all common. In cases of an initial consonant there are only very few instances of this phenomenon, and these belong either to the rusty antiquities of the language or to the isolated ventures of particular writers. The retention of the reduplication is in Sanskrit also the almost invariable rule. Delbrück Altind. Verb. p. 121 mentions and discusses the altogether isolated exceptions, and opposes the earlier and looser assumption, adopted by Corssen in order to make out reduplication to be something quite unimportant for the Latin perfect. It is especially noteworthy that reduplication is among the Indians occasionally suppressed, *only* in the more polysyllabic dual and plural forms, which also furnish the much-discussed by-forms with *ē* (*tēnus* from *tatāna*). The preference of Latin for compact forms, cooperating with the altered laws of accentuation, produces in Latin a further extension of this phonetic decay. The same thing happened in Teutonic, and as Windisch informs me, also in Keltic. The Greeks and Indians, with their delicate feeling for articulation, have, as is so often the case, retained the most faithfully the earliest forms.

a) Loss of Reduplication with an initial consonant.

1) γεύμεθα only in Theocr. xiv. 51 in the proverb μῦς γεύμεθα πίσσας (cp. Diogenian. Cent. ii. 64 ἄρτι μῦς πίσσης γεύεται). It is most natural with Meineke to take γεύμεθα as a perfect. Still we can hardly reject as impossible the explanation of the word as a present for γενόμεθα (cp. λοῦται, λοῦνται), especially since δεύμενον=δενόμενον, δεόμενον has been proved to be probably right in the last verse of Theocr. xxx.

2) δέχαται, ποτιδέγμενος Buttmann ii.[2] 149 takes as perfect forms with the reduplication lost, because the meaning 'await' which is connected with these forms (M 147 σύεσσιν ἐοικότε, τώτ' ἐν ὄρεσσιν ἀνδρῶν ἠδὲ κυνῶν δέχαται κολοσυρτὸν ἰόντα, I 191 δέγμενος Αἰακίδην ὁπότε λήξειεν ἀείδων, and often ποτιδέγμενος) is elsewhere limited to the perfect forms with reduplication: K 62 δεδεγμένος εἰς ὅ κεν ἔλθῃς, E 228 ἠὲ σὺ τόνδε δέδεξο. Cp. above pp. 104, 131. Kühner points to the post-Homeric
145 use of the present δέχομαι, e.g. Eur. Or. 1217 δόμων πάρος μένουσα παρθένου δέχου πόδα. And it cannot be denied that in the non-reduplicated forms προσδοκᾶν and προσδέχεσθαι the meaning 'await' has been attained without the help of reduplication. Now as we have also forms from the rt. δεχ without a thematic vowel in δέκτο, δέξο, δέχθαι (pp. 104, 131), the difference in meaning can hardly induce us to follow Buttmann in separating δέχθαι, receive, from δέχθαι (for δεδέχθαι) await.

3) θύμμενος, burnt, damaged, only in Et. M. 458, 40: θύμμενον:

δηλοῖ τὸ ὑπὸ πυρὸς βεβλημένον ἢ κεκακωμένον. καὶ παρὰ γεωργοῖς οἱ ὑποκεκαυμένοι ὑπὸ πάχης ἀμπελῶνες ἐντεθυμμένοι καλοῦνται. The present is τύφω. To assume an aorist *ἐθύμμην like ἐδέγμην, which would require to have a passive meaning like βλῆσθαι, is not a desirable course: it would be better to suppose that the word, belonging as it does to the language of peasants, lost its reduplication, and subsequently also the accent of a perfect.

4) ἔλειπτο Apoll. Rhod. i. 45, 824 according to Buttmann i.[2] 318 and Lobeck on Buttmann ii.[2] 17 a plupf. for ἐλέλειπτο. We discussed this form in another connexion on p. 131.

5) ἐπαλιλλόγητο Herod. i. 118, of which Buttmann says 'perhaps the somewhat clumsy compound furnished the reason for the simple augment.' It would not be very venturesome to alter a form so isolated into πεπαλιλλόγητο.

There are also three forms only recorded by Hesychius: ἀπότμηται· ἀποκέκοπται, διακόρισται· διαπαρθενεύεται, ἐπίτευκται· ἐν ἐπιτυχίᾳ ἐστί (M.S. ἔστω), all three guaranteed by the alphabetical order, but without any information as to their source. φλασμένος· τετυφωμένος is declared by Meineke on Theocr. xiv. 51 to be a copyist's error for πεφλασμένος, though it is not more surprising than the other three examples.

We will discuss οἶδα under b).

b) Loss of Reduplication with an initial vowel.

There are precisely the same difficulties in the case of reduplication with an initial vowel as those discussed on p. 91 ff. in the case of the augment. It is therefore not necessary either to enumerate all cases separately, or even to discuss in detail the combinations of letters before which this license is found. The Herodotean εἵκασται by the side of ἤκασται in the tragedians is not really different from εἵκαζον by the side 146
of ἤκαζον, though in small matters like these there are here and there small peculiarities. In the preterite there is ηὗρον as well as εὗρον, but in the perfect there is probably only εὕρηκα, εὕρημαι. We may divide the forms that belong here into three groups: (1) those with an initial diphthong or vowel long by nature, (2) those with a short vowel lengthened by position, (3) those with a vowel which remains short. The first and second groups are very widely extended over Greek of all times and dialects; the third alone is somewhat surprising, and is correspondingly rare. To the first group belong the numerous compounds with εὖ like εὐδοκίμηκα, εὐεργέτηκα, εὐτύχηκα, εὐώχημαι, in which at the most an internal reduplication is sometimes attempted, but also, what we should not have expected, a number of perfects, for which an initial ϝ is established. Among them οἶδα takes a place of its own, inasmuch as the corresponding Skt. *vēda* and Goth. *vait* also show no trace of the perfect reduplication. It is probable that here, not uninfluenced by the completely present meaning, the sign of the perfect was lost even in the time of the common language. Had we not the parallels of the cognate languages, from the point of view of Greek it would be very natural to explain the loss of the reduplicated ε in οἶδα by Herodotus's οἶκα (e.g. iv. 82) by the side of the ordinary Greek ἔοικα, and to place the loss of the ε in a time when the ϝ had already disappeared. Strictly speaking, οἶδα belongs therefore to the cases of

dropped reduplication discussed under a). But we place it here because of its resemblance to some other forms. Hesychius has preserved for us also the corresponding middle form *ἴδμαι* with the explanation *γινώσκω, οἶδα*. Since *ἴδμαι* is to *οἶδα* as *ἧϊγμαι* is to *ἔοικα*, there is no reason with Mor. Schmidt to regard this form as corrupt. A form corresponding to the Herodotean *οἶκα* occurs also in Alcman, where, however, the reading *οἶκας ὡραίῳ λίνῳ* (fr. 80 Be.[3]) is not quite certain, because of the variant *εἶκας* (cp. *εἰκώς*). On the probability of a *ϝ* in this verb see Princ. ii. 309. The analogy of these two present perfects will meet us again in a different connexion. As phonetic changes show themselves very rarely in
147 the case of an initial *ει*, *ἀπειλημένος* (Herod. ii. 141), *εἴργμαι* (Aristoph. Xen. Aesch.) are less surprising, though here too there was originally *ϝ* (Princ. ii. 170, i. 222). In the familiar Homeric *οὕτασται* (Λ 661) we could not expect the diphthong *ων*, which is unknown to this dialect. There is more to surprise us in the Herodotean *οἰκοδομήται* (i. 181), *οἴκισται, οἴκητο, οἰνωμένος*, by the side of the Attic *ᾠκοδόμηται* (Thuc. vii. 29) *ᾤκισται, ᾤκηκα* (Soph.), but the diphthong is quite in harmony with the Ionic usage elsewhere. *οἰκοδομήται* is, however, also found on the Heraclean Tables (i. 137), and Meister Stud. iv. 423 quotes *οἰκήμαι* from Archimedes. Of perfects with an initial long vowel it is worth while noticing *ἀρημένος* (Σ 435), the origin of which is obscure [cp. Merry on *ζ* 2]. The long *α* of the reduplication syllable reminds us of that in the augmented syllable of *ἄλτο*. There is also *ἀδηκότες* in the formula *καμάτῳ ἀδηκότες ἠδὲ καὶ ὕπνῳ* (K 98, 399) with the variants *ἀδηκότες, ἀδδηκότες*. La Roche, Textkrit. 179, recommends the reading of Herodian with the rough breathing (rt. *ἀδ* cp. *ἀδ-ρύ-ς, ἀδ-ινό-ς* from *ἀ=sa*, in Lat. *satur*) and one *δ*. It is doubtful, however, whether the form with *δδ*, which has quite as much authority, is not more correct, as in the cognate *ἄδδην* E 203; cp. Princ. ii. 290.

In the second group we may mention as Homeric forms *ἔρχαται* and *ἔρχατο κ* 283, *ξ* 73, the latter by the side of *ἐέρχατο κ* 241, which agree well with *ἀποέργει* Θ 325, *ἔργαθον* and the aor. *ἔρξαν*, and quite correspond to Herodotean forms like *κατέρξαι, ἀπεργμένος*, and *ἔσσαι* from the rt. *ϝες* (*ἔννυμι*) *ω* 250, from which an oracle in Herod. i. 47 gives the 3 sing. *ἐπιέσται* with the plupf. *ἔσσο* Γ 57, *π* 199, *ἔστο ρ* 203 and frequently. The course of the language must have been this—that first there was real reduplication *ϝε-ϝέρχαται, ϝέ-ϝεσ-σαι*, then with the disappearance of the internal *ϝ* (cp. *ἔαδα*) *ϝε-έρχαται, ϝέ-εσ-σαι*, then with aphaeresis of the *ε ϝέρχαται, ϝεσσαι*, and finally when the initial *ϝ* also was sacrificed to the dislike felt by the Greeks for soft spirants, *ἔρχαται, ἔσσαι*. Forms of the kind mentioned last but one have left traces enough in Homer. While then in these cases a vowel did not originally stand at the beginning, Herodotus furnishes a number of perfects of the kind without reduplication from stems, for which we cannot imagine a consonant to have been lost: *ἀμμένης* i. 86, *ἀπαλλαγμένος* ii. 167, *ἀργμένος*
148 i. 174, *ἁρμοσμένος* ii. 124, *καταρρώδηκας* iii. 145, *ἀρτέαται* i. 125, *ἔργασται* iii. 155 [but cp. Princ. i. 221] *ὁρμέατο* i. 83, *ἔσσωται* vii. 10, 4 [*ἐσσωμένος* viii. 130], *ἀπεψημένος* i. 188. Here the disinclination to long vowels before more than one consonant has evidently hindered the application of reduplication. A doubtful instance of the kind is *ὀφρυωμένος* in Timon Phlias. p. 28 Wachsmuth (Diog. Laert. ii. 126). For *ὠφρυωμένος* which

is not without M.S. authority, might also be brought into the verse by synizesis on the analogy of Ἰλεκτρύωνος (Hesiod. Scut. 3).

The most surprising group is the third. For we can see no reason for omitting the reduplication where the initial vowel is short. Hence the cases of this kind are not numerous, and are almost exclusively Homeric archaisms. There is an exception in the very surprising Herodotean ἁλισμένος (iv. 118 and elsewhere): cp. Bredow de dial. Herod. p. 292; like οἶδα, and ἔσσαι with an old digamma. Homer gives ἀλιτήμενος δ 807, with little trace of the perfect in accent or meaning, and justified also by the impossibility of bringing ἠλιτημένος into the hexameter, and ἄνωγα (e.g. Ξ 105), which was retained in the language of the Attic poets and Herodotus (iii. 81). The origin of the word is obscure, but it is not improbably connected with ἀνάγκη. Hence perhaps ἄν-ωγα is based upon Attic reduplication, like ἀκ-ωκή, the nasal in the stem-syllable disappearing after it had produced a softening of the consonant. The Oscan *angit* (tab. Bant. 2) with *angetuzet* (ib. 20) which has been identified on insufficient grounds with the Lat. *agere*, having the meaning enjoin, order, might be cognate. ἀμφ-ιαχυῖα B 316. The word could not be otherwise brought into the verse: besides the whole verbal stem is already reduplicated, for ἰ-αχ for ϝι-ϝαχ evidently goes back to the stem preserved in ἦχος, ἠχέω (cp. Fick Wörterb.[3] 204).—ἴερευτο only in Ω 125, justified by the metre.—From later poets we have further ἀπάμειπτο Anthol. Pal. xiv. 4, ἄμειπτο Nonnus Dionys. xliv. 241, but there is no trace of a pluperfect meaning in either place, and it is doubtless better to regard the word as an aorist of late formation like ἔλειπτο (p. 131):—On the other hand ἐποχημένος ἅρματι κύκνων Nonnus Dion. viii. 229 is a certain instance of the mutilated perfect.

D) Position of the Reduplication. 149

The numerous irregularities which are to be found in compound words in respect of the position of the reduplication do not come within the scope of our investigation, any more than the similar phenomena in the case of the aorists, which were briefly mentioned on p. 94. It will be sufficient to notice some of the rarer instances. Here, as in the augment, the careful endeavour not to omit the expansion which is significant of the tense is prominent. This endeavour is here even greater than in the case of the augment, so that, with the exception of the few instances already noticed, the reduplication is never wanting even in compounds, though sometimes, as a result of this strong tendency to mark the form distinctly, it is doubled. The fundamental law, according to which every verb not compounded with a preposition is treated as a whole and altered at the beginning, produces such clumsy forms as δεδυστύχηκα (Plato, Lysias), πεπολιορκημένος (Thuc.) ἠναντίωμαι (Thuc. Dem.) But the preposition here too is marked off as an unessential member of the verb, not only when the verb is used also without a preposition, as in ἀπ-όλωλα, ἀνα-δέδρομε, ἐπι-τέτραπται (Homer), but also when it either occurs only with a different meaning, e.g. in δι-ῴκηκα (Plat.), κατα-πεφρόνηκα (Orators), or does not occur at all, e.g. in ἀπο-λελόγηται (Orators), παρα-νενόμηκα (ib.), ἐγ-γεγύημαι (Plat. Dem.), ἐμ-πεποδισμένος (Aesch. Prom. 550), ἐπι-ώρκηκε (Xen.), ἐν-δεδιωκότα (tab. Heracl. i. 120), ἐν-τεθύμημαι (Thuc.). The theoretical distinction of

decomposita and *composita* had evidently never very much life in it in the genius of the Greek language. It is comparatively rare to find other first elements treated like the prepositions in compound verbs, and this is apparently the case only where the whole word begins with a vowel. To this class belong *ἀντευπεποίηκεν* Dem. xx. 64, *ἱπποτετρόφηκα* Lycurg. 139, *ὁδοιπεπορήκαμεν* Philippides Com. iv. 471 (Herod. viii. 129 has on the other hand *διοδοιπορήκεσαν*). Here again we may recognise a luxuriant creative impulse. Because the reduplication could not get its full rights with an initial vowel, it was carried out syllabically within the word. This view is confirmed by the fact that sometimes under similar conditions we find double reduplication, either in such a way that there
150 is a vowel at the beginning of the first element, and the internal reduplication is syllabic: *ὠδοπεποιημένη* Xen. Anab. v. 3, 1 (Krüger *ὠδοποιημένη*) or conversely; *δεδιήτημαι* Thuc. vii. 77, *πεπαρῴνηκα* (Aeschin. ii. 154) or thirdly, with a repeated vocalic reduplication: *ἠνώχληκε* (Dem. xxi. 4), *ἐπηνώρθωμαι* (Dem. xviii. 311). In the last two examples the treatment of the prepositions *ἐν* and *ἀνά* shows that they were no longer felt to be such. This exception to the fundamental law is illustrated by numerous instances elsewhere, and there is really very little to surprise us in it, for the coalescence of elements originally independent is one of the most frequent phenomena in the history of language. Cases of the kind are furnished by *πεπρωγγύηκα* tab. Heracl. (Meister Stud. iv. 424), which we may call the counterpart to the previously mentioned *ἐγγεγύημαι*,[4] *μεμετιμένος* (Herod. vi. 1), where the stem-vowel too is very remarkable, *ἠμφίεσμαι* (Hipponax 3, Aristoph., Plat.), *ἤνοισται· προσηνέχθη, προσενήνεκται* Hesych.

E) Significance of the Reduplication in the Perfect.

The significance of the reduplication in the perfect may be very clearly recognised from the Greek use of this tense. But it has been frequently overlooked by our grammarians, because they could not shake themselves free from the notion that the perfect must have been originally a past tense, though in Greek above all languages the employment of the primary personal terminations and the absence of the augment in the perfect indicative, and also the numerous perfects whose meaning is unmistakeably present, might have guided them aright. Yet even Buttmann was misled by his notion that reduplication was the source of the augment (i.[2] 313) into confusing the perfect with the past tenses, and thus had much trouble with cases 'where the perfect has the force of a present.' He admits (ii.[2] 89) that in perfects like *μέμηλε* 'the present proper and this derived present force approximate so nearly that the usage of the language confused them.' For several mimetic perfects,
151 like *κέκραγα*, he gives up the attempt to derive them from an earlier perfect force. Bopp was the first to discover the true point of view, which deserves the more cordial recognition in that the usage of the Indian perfect did not give at the time when Bopp wrote his Comparative Grammar, the slightest trace of a present force, with the exception perhaps of the anomalous *vēda*=*ϝοἶδα*, Goth. *vait*. At that time the Old Indian perfect seemed to be a purely past tense, and hence its usage

[4] Perhaps *ἠγγραμμέναν*, as Naber Mnemosyne i. p. 105 is inclined to write for the recorded *ἠγραμμέναν* in the second Cretan inscription published by him, line 4, in the sense of *ἐγγεγραμμέναν*, belongs here.

tended rather to increase than to diminish the old confusion. Hence it was not by means of Sanskrit, which in so many other instances served to clear up matters at once, but by a general estimation of the Indo-Germanic formations, in which the Greek usage, the isolated Latin perfects *odi* and *memini*, and the numerous Teutonic so-called 'preterite presents' carry great weight, that the founder of comparative philology was led to the correct view, which he expresses in § 515 in the following words, 'The reduplication-syllable merely serves to intensify the conception, and to lend to the root an emphasis, which is regarded by the genius of language as a type of what has already *become* and is complete, opposed to that which is viewed only in the course of *becoming*, and has not yet reached the goal. Both in sound and meaning the perfect is akin to the Skt. *intensivum*, which is also reduplicated, and in which the vowel of the reduplication is intensified for the sake of emphasis.' It was only later on that Bopp found some support for his view in the Vedic use of the perfect, quoted in ii.[2] p. 466 note; i.e. cases in which 'the perfect denotes the completion of an action';[5] and discovered (p. 531) some analogies for this in the use of the corresponding Zend forms. Spiegel too (Grammatik der altbaktrischen Sprache p. 318) takes the reduplicated perfect of Zend as the tense of completed action, and quotes instances in which this form has quite the force of a present. My statement in Tempora und Modi p. 172 f. was in accordance with Bopp's first edition. Kühner Ausf. Gr. ii.[2] 126 ff. has made no use of these explanations. More 152
recent investigations of the Greek perfect, especially the dissertation of Warschauer 'De perfecti apud Homerum usu' Breslau 1866 and the paper by Richard Fritzsche 'über griechische Perfecta mit Präsensbedeutung' (Sprachw. Abhand. aus G. C.'s, gramm. Gesellsch. p. 43 ff.) have carried the question further and treated it in detail. Hence I content myself with putting together in a narrow compass the most important points, and am often only able to repeat what I then stated.

A very considerable number of perfects have quite the force of a present, and among them very many Homeric ones. In some instances it is easy to derive the present meaning from the temporal force of the perfect which afterwards became the rule, that of a present of completed action: e.g. *κέκτημαι* (cp. Goth. *aig*) 'I possess' from the notion 'I have acquired,' *ἔγνωκα*=*novi* 'I have recognised.' But in the case of a very large number of verbs, especially verbs, as Fritzsche p. 48 well remarks, which denote an action as distinguished from a state, we cannot get out of the difficulty thus. For a completed action ceases, while a condition brought to a state of completeness may endure. Viewed temporally *πέπληγα* can only mean 'I have struck,' which carries with it the meaning of 'I am striking no more,' and any one who wishes to derive the whole usage of this form from such a fundamental meaning must take X 497

χερσὶν πεπληγὼς καὶ ὀνειδείοισιν ἐνίσσων

as denoting that the action of the first participle is completed, while that of the second endures, an explanation which a little reflexion upon the connexion of the passage will at once show to be quite impossible. One cannot see how *κέκραγα* 'I cry' is to be explained as 'I have cried.'

[5] The investigations of the use of the tenses in the Veda, in which Delbrück is engaged, will not fail to show how far such isolated observations are confirmed.

The imperative *κέκραχθι* if from a perfect of completed action could only mean 'have cried' i.e. 'have done with your crying'; but it means just the opposite; e.g. Aristoph. Vesp. 198

ἔνδον κέκραχθι τῆς θύρας κεκλεισμένης.

When it is said of Thersites B 222

ὀξέα κεκληγὼς λέγ' ὀνείδεα,

153 the meaning is certainly not that Thersites first cries out and then utters abuse. In P 264 the perfect *βεβρύχῃ μέγα κῦμα* after *ὡς ὅτε* is certainly not connected with the present *βοόωσι* to convey the meaning that the roaring of the waves is past when the beach resounds, but that both continue side by side, just like the battle-cry of the Trojans, which is more vividly presented by this comparison. In short the explanation of the present perfects from perfects of the usual kind is in many cases impossible, in others only to be carried out by unnatural devices wholly at variance with the simplicity of the earliest language. Scholars have been led to these attempts at explanation only by the erroneous notion that there were no other means of accounting for them, and that the perfect form must necessarily have from the first the assumed temporal meaning. But this is not at all the case. On the contrary we have seen repeatedly that the original force of the reduplication was *intensive* and that the perfect was a present to start with. By means of reduplication intensive presents were formed at early periods in the language. Some of these presents followed the rule of the present formation. To these belong the reduplicated presents of the primitive formation like *δίδωμι* and the not very numerous forms with a thematic vowel and a similar expansion, among them especially verbs of the I-class, like *γαργαίρω*, *τιταίνω*, and also the Sanskrit intensives, which are characterised by a heavier reduplication, e.g. *dar-dhar-ti* he holds zealously (rt. *dhar*), *a-pī-pēt* he swelled (rt. *pī*), *nā-nad-ati* they sound loudly, and some similar Greek forms like *ιη-νέω* by the side of *νέω*, *δει-δίσσομαι*, *κωκύω*, *μαι-μάω* (Fritzsche Stud. vi. 300 f.). Others, which did not establish themselves as present forms, presented themselves above on p. 288 ff. as reduplicated aorists. Now for some of such forms a distinctive method of treatment came in, that is, there were certain peculiarities of the reduplication vowel, the personal endings and the thematic vowel, through which gradually a special category arose. This new category of individualised presents we call perfect. In it the derived and transferred meaning, that of completed action, comes to be predominant.

154 But it cannot surprise us that at a time when all this was in a state of flux, a series of reduplicated forms took the same outward form, while they remained true in their meaning to the original destination of this device of language. I expressed this in the *Tempora und Modi* thus (p. 176) 'the word-forming reduplication creates in *κέκραγα* and *μέμνκα* the same terminations as the reduplication of inflexion does in *λέλοιπα*, *βέβρωκα*.' All these views have been abundantly confirmed and rendered much clearer by the more exact investigation of the Vedic forms. In the Vedic dialect the limit between intensive present and perfect forms, as Delbrück shows fully on p. 135, wavers in many ways. In short it comes out from all this as clearly as possible, *that the Indo-Germanic perfect only by degrees parted off from a reduplicated present,*

and from this it follows that where we find in the perfect a present meaning, which agrees with the force of reduplication elsewhere,[6] there is not the slightest reason to regard this as anything secondary, but rather on the contrary to recognise in it something extremely ancient and primitive.

The very considerable stock of these noteworthy present perfects may be classed as follows.

1) Mimetic verbs.

Perfects of this kind follow the analogy of presents like *μορμύρω*, *κικλήσκω*. Fritzsche p. 48 quotes eight mimetic perfects in Homer with the most decidedly present meaning: *βέβρυχα* (P 264), *γέγωνε* (ε 400), *ἰαχυῖα* mentioned above p. 373, *κέκληγα* (P 88) with the later by-form *κέκλαγγα* (Arist. Vesp. 929), *λεληκώς* X 141 (*λέλᾱκα* in the tragedians), *μεμηκώς* K 362, *ἀμφιμέμυκεν* κ 227, *τετριγυῖα* Ψ 101. There are further the later *κέκραγα*, which is so common in Attic prose that the redu- 155
plicated verbal stem is employed not merely in the future *κεκράξομαι*, but also in nominal formations like *κεκραγμός*, *κεκράκτης* and the comic compound *κεκραξιδάμας* (Aristoph. Vesp. 596), *κεκριγότες* Arist. Av. 1521, and *κεχληδέναι· ψοφεῖν* Hesych. (Fritzsche p. 51).

2) Verbs of sight and smell,

wherein we include those which denote the excitement of these sensations, and those which denote the receptive activity, as under the first head. Language indeed often denotes both by the same stems (Princ. i. 140). Reduplicated presents of this kind are furnished by *μαρμαίρω*, *παιφάσσω*, *δενδίλλω*, *παπταίνω*. Here belongs *δέδορκα*, which means only look, glance, beam: *πῦρ ὀφθαλμοῖσι δεδορκώς* τ 446, *τὸ κλέος τηλόθεν δ᾽ ἐδορκε* Pind. Ol. i. 94, *πρόσωπον μήτε δεδορκὸς μήτε σύννουν* Aristot. Physiogn. p. 808, a, 4 (a face neither expressive nor intelligent). There are also *λέλαμπε* which in Eur. Androm. 1026 can hardly be taken otherwise than as a present, and must certainly be taken so also in Troad. 1295, and *ὄδωδα*, the plupf. of which is Homeric: ι 210 *ὀδμὴ δ᾽ ἠδεῖα ἀπὸ κρητῆρος ὀδώδει*. *ὄπωπα* on the other hand appears from Homer (e.g. Z 124) onwards so often as the present of the completed action that even in Soph. Antig. 1129 *σὲ δ᾽ ὑπὲρ διλόφου πέτρας στέροψ ὄπωπε λιγυύς* we shall not explain *ὄπωπε* by *ὁρᾶ* as the scholiast does, but regard it as a genuine perfect 'has seen thee.' We may however place here *ἔοικα*, which has always a present force, only that the fundamental meaning of the root was perhaps a very different one (Princ. ii. 309).

3) Verbs of bodily actions.

We have reduplicated presents of this kind in *βαμβαίνειν* chatter, *ποιπνύειν* pant. The following perfects belong here: *δεδραγμένος* grasp-

[6] We may quote here the words of Lobeck ad Sophoclis Aiacem v. 380 on the nature and force of reduplication: 'In *παιπάλλω* clare apparet vis reduplicationis *intensiva*. Nam ut *προπρό*, *πάμπαν*, *αὖταυτος*, *ipsippus*, *quisquis*, *undeunde* nuda soni eiusdem iteratione plus significant quam simplicia, ita verba quae motum crebrum et quasi coruscantem demonstrant, reduplicationem tanquam propriam notam continuatae actionis recipiunt.' Reduplicated presents have been discussed on pp. 105, 179, 209, 212, 215, 217, 221, 226.

ing (*κονίης δ. αἱματοέσσης* N 393), *δειδέχαται η* 72 with the past *δειδέχατο* (Δ 4 *τοὶ δὲ χρυσέοις δεπάεσσιν δειδέχατ' ἀλλήλους*) in the same meaning of greeting, which attaches to the reduplicated inchoative form *δειδίσκομαι* or *δεδίσκομαι* (cp. above p. 197), *κακῶς κεκαφηότα θυμόν* E 698, *κεχηνότα* Π 409, and in the other forms also in Attic writers of the wide-opened mouth, *λελειχμότες* licking Hes. Theog. 826, which
156 Fritzsche well compares with the equivalent Skt. intensive *lē-lih*, *πεποτήαται* of the fluttering of birds B 90 *αἳ μέν τ' ἔνθα ἅλις πεποτήαται, αἳ δέ τε ἔνθα, πεφρικυῖαι* chilled H 62, cp. Pind. Isthm. 6, 40, but also in an immaterial sense Λ 383 *οἵ τέ σε πεφρίκασι, πεφρικώς* shuddering Demosth xviii. 323, *σεσηρέναι* grin Hes. Scut. 268, Aristoph. Pax 620.—We may also without violence place here the almost synonymous Homeric pluperfect, *ἐλέλικτο* (from *ἑλίσσω*) Λ 39, and *ὀρωρέχατο* Λ 26, for 'to stretch one's self' is a bodily action; but in Π 834 *ὀρωρέχαται πολεμίζειν* is to be regarded as a feeling of the mind. Perhaps also *τέθηπα* is of the same kind, if it denoted originally the staring gaze of astonishment.

4) Verbs of mental states.

These have certainly to a large degree been developed out of the preceding group, for the action of the body was the sign of a certain excitement of the spirit. But the transference of meaning cannot always be pointed out so clearly as in the case of *πέφρικα* and *ὀρωρέχαται*. Here belong *ἀκάχημαι* T 335, *ἀλαλύκτημαι*, K 94, *γέγηθα* Θ 559, *δείδια* and *δείδοικα*, to be compared with *δειδίσσομαι*, *ἔολπα* X 216, *ἔρριγα* P 175, *κέκηδα* Tyrt. 12, 28 Be.[3] *κεκοτηότι θυμῷ* Φ 456, *κεχαρηότα* H 312, *λελίημαι* M 106, *λελιμμένος* (rt. *λιφ*) Aesch. Sept. 380, *μεμαώς* and *μέμονα* (cp. *μαιμάω*), *μεμηλώς* E 708, from the middle form of which the reduplicated present *μέμβλεται* T 343 has been formed, *μέμνημαι* in ordinary Greek, *μέμηνα* Aesch. Prom. 977, *τέτηκα* Γ 176, *τετιηότες* I 30, *τετιημένος* Θ 437, *τέτληθι* E 382, *πεφυζότες* Φ 6. Some of these perfect stems also pass into noun-formation, as is shown by *ἀκηχεδόνες· λύπαι*.—In Latin *memini* and *odi* belong here, the former of which by its imperative *memento*, a form unique in all Italian languages, is proved to be a genuine present. Several present perfects in Teutonic languages also denote emotions of the mind, as Goth. *man*=*μέμονα*, Lat. *memini*, *ôg* I dreaded=*ἀκάχημαι*.

5) Intensive perfect-presents from other verbs.

The remaining forms may be arranged in two subdivisions:

a) Intransitive,

157 which naturally denote a condition which is one degree stronger and fuller than that expressed by the corresponding present form (cp. Buttmann ii.[2] 89). Here belongs *ἀλαλῆσθαι* by the side of *ἀλᾶσθαι* (γ 313), differing from it much as 'roam about' does from 'wander.' The meaning of *βέβριθα* comes out clearly, if we compare τ 112 *βρίθῃσι δὲ δένδρεα καρπῷ* with Π 384 *ὡς δ' ὑπὸ λαίλαπι πᾶσα κελαινὴ βέβριθε χθών*, though the intensive force of the reduplication is less evident elsewhere, e.g. *ο* 334 *τράπεζαι σίτου καὶ κρειῶν ἠδ' οἴνου βεβρίθασιν*, so the difference

between ἡ ἀγορὰ πέπληθε (Pherecrates Com. ii. 265 πρὶν ἀγορὰν πεπληθέναι) and πλήθει (πληθούσης ἀγορᾶς) is at most very slight, and so with τέθηλε and θάλλει. We see more of the intensive form in Π 345 ἀγορὴ γένετ' Ἰλίου ἐν πόλει ἀκρῇ δεινὴ τετρηχυῖα, and in the familiar use of πέποιθα by the side of πείθομαι. κεχρημένος ρ 347, and κέχρητο π 398 are stronger than χρώμενος and ἐχρῆτο. Warschauer in the essay above-mentioned p. 19 wishes to take the Homeric βέβηκα often as an intensive βαίνω, and to explain thus the remarkable use of the pluperfect 'de deorum gradibus aeterni roboris plenorum,' e.g. A 221 ἡ δ' Οὔλυμπόνδε βεβήκει. Certainly the same form occurs often enough of men in the same sense, where an especially vigorous movement does not suit the context, e.g. Z 495. But it is certain that ἐβεβήκει, when thus applied, approximates very closely to the imperfect, and that an entirely false sense is introduced into the passages by those who try to find in it a real pluperfect of previously completed action. In the same way we have a perfect with the force of a present in Δ 11 τῷ δ' αὖτε φιλομμειδὴς Ἀφροδίτη αἰεὶ παρμέμβλωκε.

b) Transitive.

In A 113 προβέβουλα has decidedly an intensive tinge, which has entirely disappeared in the German perfect-present 'ich *will*,' and so in βεβρώθοις Δ 35, which approximates as nearly to the verbs of bodily action as βέβουλα does to those of mental condition: there are also κεκοπώς σ 335, πεπληγυῖα E 763. A very clear instance, out of which a temporal perfect cannot be extracted by any kind of dodges or devices, is given in κλήρῳ νῦν πεπάλασθε Η 171. Reduplication has here much the same effect as in παιπάλλειν. The intensive force has disappeared in ἄνωγα and γεγριφώς· ὁ ταῖς χερσὶν ἁλιεύων (Hesych.). It is worth noticing that verbs denoting a state appear far more often in these forms 158
than others do. An action often seems all the more energetic, the more it is complete within itself. This is the sense in which Rumpel 'Die Casuslehre' p. 118 f. speaks of the 'intensive pregnancy' of the intransitive. The circumstance that so many perfects of the earlier stamp are used intransitively, is closely connected with this. To this list belongs probably the Indo-Germanic *vaida*, perfect from the root *vid* see, with the heightened meaning of inner sight or knowledge (Skt. *vēda*, Zd. *vaêdâ*, 2 sing. *vôiçtâ*, Gr. ϝοῖδα, Goth. *vait*), which lost its reduplication, it is true, in the very earliest times, but was certainly characterised originally by this device of language, just as much as the Homeric δεδαώς, in order to distinguish the clearer inner sight from the external. For the current explanation 'I have seen' and hence 'I know' has much too sensualistic and empirical a flavour to suit very ancient times.

In this examination we have omitted all forms in which it is probable or easily possible that the present meaning originated from a fully developed temporal perfect. We might in this sense distinguish between primary and secondary perfect-presents. Those are secondary in which the meaning attaching to the present, and indeed also to the aorist forms, of the gradual or the sudden origination or of the coming into being of the action is excluded in the perfect: this is the case certainly in ἕ-στη-κα which presumes the 'petrifaction' of the movement which is presented in ἵστασθαι, στῆναι, and in βέ-βηκα in the meaning I have

stept out, I stand firm, whence the adjective *βέβα-ιο-ς* is derived from the perfect stem *βεβα*. To this class belongs also the familiar Homeric *ἀμφιβέβηκα* Α 37 *ὃς Χρύσην ἀμφιβέβηκας*, which I formerly explained erroneously as 'wander round.' Passages like Ρ 359 and the substantive *ἀμφίβασις* Ε 623 prove that the present perfect denotes a firm and, properly speaking, striding position to protect an object. This was the explanation given by Aristarchus, as Aristonicus testifies: *κατὰ μεταφορὰν ἐκ τετραπόδων ὑπερμαχεῖν*. This view is now with justice generally adopted by most commentators. Hence this is a secondary perfect-present. We must come to the same conclusion about the Lat. *co-ĕpi* (Lucret. [once : and four times in Plautus : cp. Munro on Lucr. iv. 619]),
159 contracted *coepi*, like *incepi*. Of the Greek perfects with a present force I am inclined to interpret in the same way *ἐγρήγορα, τεθάρσηκα, τέθνηκα, νενόμικα, πεπόνημαι, πεφόβημαι, ἐσπούδακα, πέφυκα*. It is sometimes difficult to decide, as so often in questions of syntax, because we have no criteria for the time in which a definite usage established itself. It is not uncommonly just as possible that very ancient tendencies continued to show themselves in a usage, as that later ones were at work.

So much is certain. Even the language of Homer is acquainted with the employment of the perfect form to denote *completed* action. In clearly recognisable distinction from the extremely numerous instances of a purely present usage, just discussed, we meet with perfects like Τ 122 *ἤδη ἀνὴρ γέγον' ἐσθλός*—*Εὐρυσθεύς*, Ρ 542 *ὥς τίς τε λέων κατὰ ταῦρον ἐδηδώς*, Ε 204 *ἐς Ἴλιον εἰλήλουθα*, Γ 57 *κακῶν ἕνεχ' ὅσσα ἔοργας*, Α 125 *ἀλλὰ τὰ μὲν πολίων ἐξεπράθομεν, τὰ δέδασται*, Γ 134 *πόλεμος δὲ πέπαυται*, *μ* 453 *εἰρημένα μυθολογεύειν*. Those are noteworthy instances in which one and the same perfect is used in two ways, e.g. *ρ* 190 *δὴ γὰρ μέμβλωκε μάλιστα ἦμαρ* by the side of the purely present *παρμέμβλωκε* quoted above. Probably this latter usage is much older. Perhaps we should represent to ourselves the way in which the present of completed action was developed out of the intensive present somewhat as follows. By the side of the intensive present there was in many cases from the first a non-intensive present formed from the same stem. The distinction between the two necessarily became more precise, as time went on. The non-intensive or ordinary present, e.g. *ὄλλυμαι, ἔρχομαι, γιγνώσκω*, inasmuch as it expressed a less vigorous action to start with, by degrees, as compared with the perfect present, shifted into the form for the (so to speak) incipient or growing, attempted, intended, preparatory action; while on the other hand the perfect present e.g. *ὄλωλα, ἐλήλυθα, ἔγνωκα* denoted the opposite to all this, the completed, full, finished action. Owing to the fact that a past tense, the pluperfect, was very often formed from the perfect stem, and not uncommonly a future also, this contrasting usage got more and more established; and as the instinct of language is directed, as time goes on, much less to the ancient, delicate and, so to speak, qualitative and more physical distinctions between syno-
160 nymous forms, than to easily conceived distinctions useful for the connexion of speech, the perfect was used more and more to express a *stage of time* distinct from the present. The last step in this development, viz. the change of the present of completed action into a past tense of action generally, is prepared for perhaps in later Greek prose—a question which still calls for thorough investigation—but is never carried out in

Greek : [cp. Winer's Grammar p. 340, with Moulton's note (E. T. ed. 2)]. The existence of the aorist, which in Greek is so fully developed, preserved it from this. On the other hand the so-called *perfectum historicum* of the Romans, the prevalent corresponding usage of the perfect in Sanskrit, and the narrative use of the Teutonic perfect, to which has been given indeed the name of preterite, or even of imperfect, represent the final point in the long series, in which the different stages can be clearly distinguished. How the present of completed action can change into a past is shown most strikingly by the exclusively popular use, especially in South Germany, of the periphrastic perfect 'he has done, said' etc. in narrative. Doubtless the comparison of languages which are not cognate would also be able here to explain and confirm much. Thus W. v. Humboldt in his work 'Ueber die Verschiedenheit des menschl. Sprachbaues' p. 267 mentions that in the Huasteca language the same syllable serves to denote the violence of an action, and to express the past. We have here the same starting-point and the same final point as in the Indo-Germanic languages, and we may probably conjecture that there were also similar intermediate stages between the two.

II. THE PERFECT ACTIVE.

In no tense is there such an essential difference between the form of the active and that of the middle as in the perfect. Almost without exception the perfect middle follows the primitive method of formation of the verbs in *-μι*, while the active, though it has also preserved some relics of this method of formation, in the vastly predominating number of verbs goes back to a disyllabic stem ending in a vowel. The only 161
distinctive mark common to all perfect forms is reduplication. Now that we have treated of this generally, we must divide our subject-matter, and discuss the perfect active by itself. In doing so we start with the terminations, and then turn to the formation of the stem. It is only later on that we come to the perfect middle with its essentially different characteristics ; and this, like the active, we shall deal with first in the indicative. The forms proceeding from the different perfect stems, viz. the pluperfect, the moods and verbal nouns of the perfect, and the future of the perfect stem form the close of the whole widely ramifying discussion.

A) Personal Terminations of the Indicative.

The indicative of the perfect has long since taken its place in the system of the Greek verbal forms among the main tenses, i.e. by the side of the present and the future. The primary personal endings, which have not suffered the slightest alteration in the middle, and in the active only differ very slightly from those of the tenses mentioned, clearly point to this common character. In Greek it is only the infinitive and the participle of the perfect which have terminations entirely differing from those of the present. In the cognate languages, on the contrary, the case is quite otherwise. The Sanskrit and Zend perfect points, it is true, by the diphthong *ē* in the middle, which is characteristic of primary forms, to the fact that the perfect is one of the present formations, and the ending

of the 2 sing. mid. *-sē* agrees completely with the Greek *-σαι*. But in the active we can notice no remarkable likeness of the personal terminations to those of the present. The 1 sing. and 3 sing. perf. are without any terminations; the 1 plur. has not *-mas*, but the secondary *-ma*, the 3 pl. *-us*, which occurs also in various past tenses. The Latin perfect too does not correspond at all completely in its terminations to the present; though this is less surprising here, seeing that in Latin the distinction between the two kinds of personal terminations is almost entirely obliterated everywhere. It is however noteworthy that the only terminations which are quite peculiar to the perfect distinguish this tense quite as definitely from the present, as from all other tenses. In the 2 sing.

Skt. *-tha*, Zend *-tha*, Gr. *-σθα*, Lat. *-sti*

162 correspond. We discussed this termination on p. 34 ff.; it may be placed indifferently under the head of the primary or the secondary. Moreover, *οἶσθα=vēttha* is the only instance showing the two terminations with the same root. But for the Latin perfect, forms like *vidi-sti*, *legi-sti* as contrasted with *vidēs*, *legis* are of much importance in determining the connexion of this tense. For the Greek, the question is whether the greater agreement of the Greek perfect with the present in its terminations is a very ancient feature which has been here preserved, or a later formation, which only arose on Greek soil. I have no doubt about the answer to this question. We have had reason to think that the perfect was originally nothing but an intensive present. How then could the almost complete identity of the terminations in Greek, and the extensive resemblance in the case of the middle in Sanskrit rest upon chance? It is therefore extremely probable that the deviating forms of the perfect active in the two Asiatic languages are based upon later mutilations. We found a complete loss of the ending in the 1 sing. present also. Now evidently reduplicated forms might more easily than others suffer such a loss, because of their length and heaviness. But in the case of Sanskrit this abbreviation in the active is a very ancient one. Delbrück (p. 46) also gives instances of the 2 plur. entirely without an ending from authorities as early as the Vedas, e.g. *dadá* like a possible **δέδοτε*. Who would venture to regard such forms as complete? They have evidently lost their termination. Now why should not the *mi* of the first person, and the *ti* of the third person in the singular have disappeared just as well? Other attempts to explain forms like *γέγονα*, *γέγονε*=Skt. *ǵa-ǵana* we saw on p. 25 to be untenable. It is still easier to understand the abbreviation of an original *-anti*, retained in Greek, into *us* in the 3 pl. We shall find presently some analogies for this from later Greek. The preservation of the terminations in Greek was evidently assisted by the meaning of the perfect, which until comparatively late times remained, as we saw, distinct from that of the past. The perfect middle experienced this influence most fully. It shows in its whole formation a high antiquity, and other traces lead us to the opinion that the middle voice of the perfect in early periods of the life
163 of the Greek language was more commonly formed and employed than the active; for many of the active forms are based upon later formations, which are still to a great extent unknown to the language of Homer, while in the middle little of the kind is to be recognised. Hence we

have a right to assume that the full terminations of the perfect middle *μαι, σαι, ται, νται* contributed to keep up the consciousness of the connexion of the perfect with the present.

We now proceed to the several terminations. Two instances of a 1 sing. perf. act. in *-μι* are preserved to us, both from the same root: *γοίδημι* i.e. *ϝοίδη-μι* · *ἐπίσταμαι*[7] Hesych. and *ἴσᾱ-μι* · *ἐπίσταμαι Συρακούσιοι*. The significance of the two forms for the doctrine of the perfect I have pointed out already in Stud. i. 1, p. 239 ff. As *ἴσαμι* by its *σ* shows that it is a form of a peculiar kind, we have to consider especially *ϝοίδημι*, which we brought into notice on p. 26, when discussing the personal endings. The vowel before the termination will occupy us again hereafter. Here we have to do with the termination itself. *οἴδημι* is mentioned as Aeolic also by Choeroboscus, p. 867, and in the *Ἐπιμερισμοὶ Ὁμήρου* (Anecd. Oxon. i. p. 332, 2): *οἱ δὲ Αἰολεῖς τὸ οἶδα οἴδημι λέγουσι*; cp. E. M. p. 618, 55. It is easy to say that here the already present perfect has passed wholly into the present inflexion of the verbs in *-μι*. But even though the analogy with the conj. *εἰδέω* and fut. *εἰδήσω* is unmistakeable, and did not escape even the ancients, still it would be an entire mistake to regard the form as one purely present in its character, and wholly foreign to the perfect *οἶδα*. For the *οι* points distinctly to a perfect form, and I do not see why a very ancient form should not have been preserved here. Delbrück too (Altind. Verb. p. 24) agrees with me in holding that the termination *-mi* once held its place after the *a* of the 1 sing. The loss of the termination may have begun as in the present (p. 30) with the apocope of the *i*, and only afterwards have extended itself to the nasal. The nasal isolated at the end of the word disappeared entirely, as so often after an *a* (e.g. *πόδα*=Skt. *padam*, *ἔδειξα* 164
=*adiksham*). I do not venture to decide whether the course in Sanskrit was the same. But the loss of the ending is firmly established for similar forms of the present in Zend (cp. p. 26) and for the so-called imperative or more properly conjunctive forms in *-āni* (Delbrück p. 26) in the Veda dialect.

For the 2 sing. the termination *-θα* or *-σθα* is characteristic, though Greek has retained it only in *οἶσθα*, which we have already on p. 34 compared with the Skt. *vēt-tha*, Zend *vôiçtâ*, Goth. *vaist*. The Latin perfect termination *-stī* on the contrary shows a remarkable similarity to the *-tha* of Sanskrit and Zend, so that on p. 36 we compared *dedi-sti* with Skt. *dadi-tha* and Zd. (*fra*)*dadâtha*. *bibi-sti* answers to Skt. *papā-tha*, *fui-sti* to Skt. *babhūvi-tha*. There is nothing surprising in the fact that the full ending *-σθα* afterwards became softened into the *-ς*, which runs through all tenses and moods, especially as even present forms like *ἵστης, τίθης*, Dor. *ἀμέλγες* (p. 139) have retained no other sign of the person than this simple *ς*. The Doric *ἴσαις* Theocr. xiv. 34 quite follows the rule of the present.

The 3 sing. has as a rule no sign of the person either in Sanskrit or in Zend, so that e.g. *ǵa-ǵāna* and the equivalent *γέ-γονε*, *ānāça* and *ἐν-ήνοχε* are quite parallel. Some stems in *ā* indeed form a 3 sing. in *āu*, e.g. *dadāu δέδωκε*, *tasthāu ἕστηκε*; but this diphthong certainly does not contain a proper personal suffix, for apparently it appears in the 1 sing. also, though not till post-Vedic Sanskrit. Hence Latin here with its

[7] With regard to the *γ* as representing *ϝ* it is sufficient here to refer to Princ. ii. p. 228 ff.

dedi-t, steti-t, cecidi-t surpasses the languages mentioned. But the well-authenticated Doric ἴσᾱτι (C. I. no. 5773, Theocr. xv. 146) is still more complete, for it has preserved even the final vowel. The usual Greek form, on the other hand, is more weakened than the ordinary present form; still on p.41 we came across Aeolic presents like 3 sing. γέλαι, δίδοι, which have retained no more of the personal termination than γέγονε, and it is no better even with λέγει and the like.

In the 1 plur. Sanskrit has only the ending *-ma*. Neither *-mas*, nor the specifically Vedic *-masi* is established for perfects. The Dorians on
165 the contrary did not give up the fuller termination *-μες* even in the perfect: ἀποκεκύφαμες (Reiske, Dind. ἐπικεκύφαμες), Aristoph. Lys. 1003, ἀπεστάλκαμες C. I. no. 2670, 2, any more than the Romans their *-mus*.

The 2 plur. is not distinguished from the present. There are only a few peculiar forms in *-θε* instead of the usual *-τε*. Of these only one properly belongs here, because it is the only one found in the indicative, πέποσθε thrice in Homer in the phrase ἐπεὶ κακὰ πολλὰ πέποσθε Γ 99, κ 465, ψ 53. So Herodian and our M.SS. Aristarchus read πέπασθε, not as though he derived the form from the un-Homeric πεπᾶσθαι possess, as Eustathius thinks, but, as Lobeck saw on Buttmann ii.[2] 25, as a kindred form to the participle πεπαθυῖα, the *α* of which seemed to him to suit this form better than the *ο* which only appears before the *ν* of πέποιθα.—There are also two imperative forms of the like formation, which we take into consideration here, because they are indispensable for our decision as to the termination: ἄνωχθε χ 437 [Eur.] Rhes. 987 and ἐγρήγορθε Η 371, Σ 299 ἐγρήγορθε ἕκαστος.—A third imperative form in the Hymn. in Apoll. Pyth. 360 νηὸν δὲ προφύλαχθε is without reduplication. The form is too extraordinary to be credible, and the whole line is wanting in the best M.SS. It seems to me that Lobeck on Buttmann ii.[2] 25 saw the truth, in holding that the composer of the line meant to write νηοῦ δὲ προφύλαχθε, and that with a license not unexampled in late Greek, he formed a perfect middle without reduplication.—There is still less authority for the form οἶσθε in the place of the usual ἴστε, which in Bachmann's Anecd. ii. p. 358 is quoted from Sophocles, evidently with reference to O. R. 926

μάλιστα δ' αὐτὸν εἶπατ' εἰ κάτοισθ' ὅπου.

This is the reading of La. But the editors justly assume a corruption as a result of itacism, and print κάτισθ'.—On the strength of these five forms—though he omits to mention the last two,—Westphal Method. Gr. i. 2, 52 starts the theory that the 2 pl. act. had originally the ending *θε* as well as *τε*. He will not find any one to agree with him. Such unexampled forms point to special aberrations of the language. Buttmann ii.[2] 24 was certainly right in saying 'from the similarity of sound to that of the passive terminations (τέτυφθε, ἔφθαρθε etc.) the *τ* some-
166 times passes into *θ*.' The want of a vowel belonging to the stem misled the instinct of the language, which was used to such groups of letters only in the middle, into confusing them with the middle terminations. In the case of ἄνωχθε this view is confirmed by the 3 sing. ἀνώχθω Λ 189. Or are we really to conjecture for the 3 sing. imper. also an old by-form in *-θω*? No one will readily believe this. For ἐγρήγορθε we have also to take into account the middle infinitive ἐγρηγόρθαι κ 67.

The 3 plur. with its decidedly primary ending does more than any

other person to secure to the perfect its character as one of the principal tenses. Examples of the Doric forms in *-αντι* have been quoted already on p. 46 f. We may add from an inscription edited by Ross no. 81 *ἀνατεθέκαντι*, from Sophron. *κεχάναντι* fr. 51 Ahr., *ἐκπεφάναντι* fr. 75, *ἵκαντι· ἥκουσι* Hesych. (?) (cp. *ἵκειν· ἐληλυθέναι*), *ἐμμόραντι· τετεύχασι* ib. That the Aeolians remained equally faithful to the primary ending is shown by Boeot. *ἀπυδεδόαιθι* C. I. 1569 a iii. l. 35, Lesb. *πεπάγαισιν* (Alc. fr. 34, 2 Be.^{3}), *κεκρίκαισιν* (Sappho ? fr. 137 Be.^{3}), as Ahrens is probably right in writing on the analogy of *λίγοισιν* etc.; the M.SS. give forms in *-ᾶσι*. For the Ionic dialect the curious shortening of the *α* must also be mentioned: this is well authenticated by two passages in Homer (*πεφύκᾰσι τηλεθόωντα η* 114, *λελογχᾰσιν ἶσα θεοῖσι λ* 304) and by Herodian ii. 16 L., where two passages from Xenophanes—(*μεμαθήκᾰσι, πεφήνᾰσι*) and one from Antimachus (*νενεύκᾰσιν*) are quoted. Herodian knows of *ἕτερα πλεῖστα*, Nicand. Ther. 789 has *ἐσκλήκᾰσι χηλαί*. Empedocles has v. 314 *λελόγχᾰσι*, v. 336 *πεπήγᾰσιν*. Cp. Merzdorf Comment. philol. sem. Lips. p. 55. We may to a certain extent compare with this Ionic shortening the Doric shortening of *-αντι* to *-ατι*, of which however only one example probably is preserved to us, *ἐθώκατι· εἰώθασι* Hesych., so that the case is not very firmly established. Greek is elsewhere also inclined to reject a *ν* after *α* (cp. *ἐ-κατό-ν* and the 3 pl. mid. in *-αται, -ατο*). The desire to distinguish the 3 pl. from the 3 sing. hindered elsewhere this tendency to consult convenience. No wonder that in the perfect, where the 3 pl. was otherwise sharply distinguished from the 3 sing. here and there convenience carried the day. While in such cases a tendency to internal shortening appears, which is quite unknown in the present, elsewhere an external shortening must be noted, whereby 167
the Greek language turns into the path consistently pursued by Sanskrit. Third persons plur. in *-αν*, i.e. with a secondary ending, are recorded in several instances. Ahrens quotes *ἀπέσταλκαν* C. I. no. 3058 l. 5, 3048 l. 4, 3052 l. 4, and we may add *κέκρικαν* from the Delphic inscription of the Amphictyons (l. 58) published by Wescher in 1868. All the other known instances date from the Alexandrine times, as *παρείληφαν* C. I. 3137 l. 38, *πέφρικαν* Lycophr. 252, *ἔοργαν* Batrachomyom. 178. Sextus Empiricus adv. gramm. § 213 explains such forms as Alexandrine, and quotes as an example *ἐλήλυθαν*; others of the same kind like *ἑώρακαν, παρέστηκαν, πέποιθαν* are quoted by Sturz de dial. Alex. p. 58 from the LXX.: for the occurrence of such forms in the New Test. cp. A. Buttmann New Test. Grammar p. 43 (E. T.) [Moulton's Winer p. 90]. Undoubtedly the analogy of the aorists and of the other 3 persons plur. in *-σαν* which were constantly growing more numerous in the Alexandrine time, favoured the rise of such forms; and all the more so that the syntactical distinction between the perfect and the past tense was less sharply maintained at that time. We thus see that at a very late date the Greek language had arrived at pretty much the same point as that at which we find Sanskrit in the earliest times. For as in the perfect active the 3 pl. alone had the definite recognizable type of the primary form, this change in late Greek of the old *-ασι* into *-αν* really did away with every definite mark of the perfect active as a principal tense. But the middle always remained faithful to the old type. And thus even in the very latest period provision was made for separating the perfect from the past tenses.

B) Formation of the Stem.

a) Relics of the primary formation.

The old view that perfect forms like *βέβᾰ-μεν*, *ἑστᾰ-τε* are *syncopated* or *shortened* from the longer forms *βεβήκαμεν*, *ἑστήκατε* is even in Buttmann carried out with a positiveness, which astounds us in the case of an enquirer of such insight and independence. And yet this view leads to the assumption, advanced at i.[2] 416, that forms like *δεδάασι δεδαώς*,
168 *μεμάασι μεμαώς*, *γεγάασι γεγαώς* are to be regarded in the same way 'even though the perfect in *ηκα*, from which they may be presumed to have been abbreviated, does not exist.' In this phrase 'may be presumed to have been' [German *wären*, the 'conjunctive of non-reality'] Buttmann's scientific conscience betrays itself, which could not after all quite free itself of doubts as to this theory. Elsewhere this thinker, usually so rigorous, escapes more easily from the difficulties which resulted from adhering to the doctrine of syncope, as in ii.[2] 23, where he is treating of *κέκραχθι*. As of course a **κεκραγε-θι* or anything of that kind, which would have to be assumed in obedience to this theory, would contradict all analogy, he gets out of it in the following way: 'as some perfects of this kind acquire a present force, these acquire also a 2 sing. imper. with the termination *-θι*,' where he seems to forget that this termination belongs only to verbs of the so-called conjugation in *-μι*. How easily might this *-θι* have guided him to a truer course, had he not resolutely made up his mind on this point to stick to the old method! I do not know whether at the present day, when Ahrens, Bopp and Kühner have long ago recognized the truth, any one holds from conviction to the doctrine that e.g. *βεβήκασι*, by a quite unexampled loss of the *κ* and shortening of the stem-vowel, became *βεβάασι*, and that *δείδιμεν* came in a similar way from *δειδοίκαμεν*. But there is still no lack of men, who either thoughtlessly sing the old song of 'syncopated perfects,' or try to prove their claim to be 'scholars' of the purest water by showing themselves unmoved by the doctrines of 'comparative philologists' on such points. And yet even Lobeck El. Path. i. 380 says in plain blunt words 'perfecta quibus syncope *praetenditur*' 'sequuntur exemplum praesentis *ἵσταμεν*, *δίδομεν* etc. *sine ulla syncopae contagione*.'

The personal endings of the dual and plural indicative were attached directly to the perfect stem in a limited number of archaic verbs. These forms naturally are related to those with the vowel *α*, which became the rule, precisely as the present forms of the same kind are to those with the thematic vowel. If any one regards *τέτλᾰμεν* as syncopated, he would have to maintain the same view of *τίθεμεν*, *ἵσταμεν*, and even of
169 *ἔθεμεν*, *ἔδομεν*. Indeed strict consistency would demand that he should also explain forms like *ἕσταμαι*, *δέδομαι* and ultimately the whole perfect middle as syncopated. The question here naturally deals altogether with primitive forms of the most ancient formation. In the singular no forms of the kind occur.[8] But as in the plural the full endings give a hold to the short stems, for which they supply as it were the framework, so the same holds good of the termination *-θι* in the 2 sing. imper., of the suffix

[8] Lobeck on Buttm. ii.[2] 27 shows that singulars like **τέτλαα* and the like, which used to be senselessly presupposed, do not exist.

-ναι or -μεν in the infinitive, and of the suffix -οτ (for ϝοτ) of the participle. But there are other forms which must not be omitted here. Though we are, strictly speaking, only dealing in this section with the perfect indicative, still in our survey of the existing stock of primitive flexions we must of course take into account not merely the imperatives and participles, but also the pluperfects. The demonstrable forms of this kind are, alphabetically arranged, the following:

1) ἄνωγμεν hymn. Apoll. Pyth. 350, ἄνωχθι Ψ 158, Aesch. Choeph. 772, Eur. Alc. 1044. ἄνωχθε, ἀνώχθω have been treated above p. 384.

2) βεβά-ασι B 134. For the double *a* compare p. 48. The contracted βεβᾶσι is quoted from the tragedians. As βεβᾶσι is to βεβάασι, so is βεβώς to βεβαώς. The latter is confined to Homer (Ξ 477), the former to Attic poetry. In the feminine βεβῶσα makes its appearance as early as ν 14, by the side of ἐμβεβανῖα Ω 81. These forms will have to be discussed later on. The Homeric infin. is βεβάμεν (P 359), in Eurip. and Herod. βεβάναι. 3 plur. plupf. βέβασαν P 286.

3) βεβρῶτες only in Soph. Antig. 1022.

4) γεγάασι Δ 325, also in Hes. and Apoll. Rhod., inf. ἐκ-γεγάμεν E 248, γεγαῶτα I 456, ἐκ-γεγανῖα Γ 199. γεγώς fem. γεγῶσα in the tragedians, plupf. ἐκγεγάτην κ 138.

5) δεδαώς ρ 519, δεδάασι Callim. Ap. 46.

6) δείδιμεν I 230, Att. ἔδιμεν Thuc. iii. 56, δεδίασι Ω 663 and Attic, imper. δείδιθι Ξ 342, Att. δέδιθι (Aristoph.), inf. δειδίμεν κ 381, part. δειδιότες Δ 431, Att. δεδιώς, ἐδείδισαν E 790. The Homeric reduplication is quite after the fashion of the intensive verbs.

7) ἐγρήγορθε cp. p. 384. 170

8) ἔϊκτον δ 27, ἐΐκην Α 104, ἔοιγμεν Soph. Aj. 1239, Eur. Heracl. 681, Cyclops 99.

9) εἰλήλουθμεν I 49, γ 81, ἐλήλυμεν Cratin. Com. ii. 153 with the variant ἐλήλυθμεν Achaeus fr. 22, Nauck, ἐλήλυτε ib. fr. 41.

10) τεθνᾶσι X 52, τέθνᾰμεν, τέθνατε in Attic prose-writers, τέθναθι X 365, τεθνάτω O 496 and Attic, inf. τεθνάμεναι Ω 225, τεθνάναι Attic, τεθνηώς P 161, ἀποτέθνασαν μ 393, ἐτέθνασαν Attic.

11) ἴδμεν in Homer and Herodotus, Att. ἴσμεν, in all Greek ἴστον, ἴστε, plupf. ἤσμεν, ἦστε in the tragedians, dual ἤστην Aristoph.

12) κέκραχθι Aristoph. Vesp. 198, Ach. 335, but plur. κεκράγετε Vesp. 415.

13) μέμαμεν I 641, μέμαθ' H 160, μεμάασι K 208, μέματον K 433, imper. μεμάτω Υ 355, μεμαώς often in Homer, also in Pindar; plupf. μέμασαν N 337.

14) μεμβλώντων· τυχόντων Hesych., a form like βεβρῶτες, only passing over into the analogy of the present, whereof more later on. A similar method of formation is presented by the aor. ἔβλω· ἐφάνη Hesych., both from the present βλώσκω.

15) πέπεισθι or πέπισθι Aesch. Eum. 599, ἐπέπιθμεν B 341, Ξ 55.

16) πέπυσθε with the variant πέπασθε (Aristarchus), discussed on p. 384.

17) πεπτηώς ξ 354, πεπτηῶτες, πεπτηυῖα.

18) ἔσταμεν λ 466, ἀφέστατε Δ 340, ἔστητε with a very singular long vowel Δ 243, 246, ἑστᾶσι Δ 245, ἔστατον Ψ 284, imper. ἔσταθι χ 489, inf. ἑστάμεναι Λ 410, ἑστάμεν M 316, partic. ἑστεώς Herod., ἑσταότος Τ 79 etc. The Attic forms e.g. ἑστάναι partic. ἑστώς etc. even where they

differ from the Homeric do not need to be established by references. 3 pl. plupf. ἕστασαν E 781.

19) τέτλαμεν υ 311, imper. τέτλαθι A 586, τετλάτω π 275, inf. τετλάμεναι ν 307, τετλάμεν γ 209, partic. τετληότες E 873, τετληῖα υ 23.

We may call attention once more here, out of the alphabetical arrange-
171 ment, to the Boeotian ἀπο-δεδόανθι, mentioned already on p. 384, in the inscription from Orchomenus, which differs from an Ionian *δεδόασι only by its νθ.

To these archaic forms from verbal stems and roots of the most primitive stamp we must add from a much later time two isolated formations from stems evidently derivative, which are clearly connected with each other, but are otherwise quite isolated, viz.

20) δεδειπναμεν Eubulus Com. iii. 248 several times, Alexis ib. 429, δεδειπνάναι Plato ib. ii. 663.

21) ἠρίσταμεν, quoted by Athen. x. 423 a from Aristophanes and Hermippus (Com. ii. 407). The passage of the latter poet—

ἠριστάναι καὶ παριστάναι τουτί

evidently contains an assonance. Perhaps both forms owe their existence to parody, or some such play upon words, somewhat as in the German 'umgebrungen,' 'gespiesen.'[9] Lobeck on Buttm. ii.[2] 28 derives δεδειπνάναι from ἠριστάναι by 'synecdrome.'

b) Formation of the stem by the addition of a vowel.

While the perfects of a primitive character just discussed were quite in a minority, the formation of the stem by means of a vowel became the rule throughout. This vowel, by the addition of which perfects of root-verbs acquired a disyllabic, or in the case of syllabic reduplication a trisyllabic stem, appears regularly as α and is weakened into ε only in the 3 sing. The stem γεγονα of γεγόνα-μεν is to the shorter γεγα of γέγα-μεν, the stem πεποιθα of πεποίθα-μεν is to the πεπιθ occurring in ἐ-πέπιθ-μεν as the present stem ἐα i.e. ἐσα (p. 119) is to ες. The imperfect form ἔατε is to ἦστε precisely as οἴδατε to ἴστε. The α of such disyllabic present stems e.g. even that of ἄγα-μαι, πέτα-μαι seemed to us on p. 123 an expansion of the stem analogous to the thematic vowel. And I see absolutely no reason to deny the same character to the final vowel of the perfect stem. It is only the fact that this vowel does not appear in Sanskrit with anything like the same regularity as in Greek, and that in this language the *a* is limited to the 1 and 3 sing. while in the other forms there is sometimes no vowel found, sometimes *i* before
172 the personal endings, which has led scholars to regard the vowel of the perfect as a phenomenon of an altogether peculiar kind. Bopp Vergl. Gr. ii.[2] 497 calls the *i* of Sanskrit forms like *tutup-i-ma* a 'connecting vowel,' but yet conjectures that this *i* 'may at an earlier time have been *a*.' Hence he evidently regards this vowel as the same as that appearing in γεγόνα-μεν. Schleicher could not upon his principles admit 'connecting vowels,' but he moves in the same circle of ideas, when, supported by the comparative rarity of this vowel in the Vedas, he calls (Comp.[3]

[9] [Burlesque formations, arising from a misapplication of grammatical analogies for 'umgebracht,' 'gespeiset,' analogous to our own burlesque lines:

And many a leery smile he smole,
And many a wink he wunk.]

724) the Sanskrit *i* in question 'a subsidiary vowel of later development, between the perfect stem and the personal ending.' Even Delbrück treats the *i* as a 'connecting' vowel. It seems to me that a careful examination of all the perfect forms from all the languages which possess such a tense, entirely confirms the *stem-forming* character of this vowel.

In Sanskrit itself it can hardly be said that there is any adequate reason for regarding the vowel *a* of *tutōda* in the 1 and 3 sing. and that of *tutudá* in the 2 pl. as anything specifically distinct from the *i* in *tutudima*, *tutuditha*. For as the weakening of an *a* to *i* in unaccented syllables is among the most common phonetic phenomena of Sanskrit, and as we find in forms from stems ending in *a*. e.g. *dadhi-má* answering to a **τέ-θε-μεν*, *ta-sthi-má*=*ἔ-στα-μεν*, an *i* instead of this *a*, one cannot see why a form like *dadarçi-ma* should not be related to *δεδόρκα-μεν* as *pitā* is to Gr. *πατήρ*. Gothic and Old Erse also point to perfect stems with a final stem-forming *a*. In Gothic the *u* of plural forms like *vitum*, *vituth*, *faifahum*, *faifahuth* is explained by Schleicher as a subsidiary vowel just like the *i* of the Sanskrit, although it is found even after vowels, e.g. in *saisôum*. Nothing however prevents us from regarding the *u*, as well as the *i* appearing in the same place in Sanskrit, as a weakened *a*. In Old Erse we find the *a* in this place, just as in Greek, most plainly, as I learn from Windisch, in deponent forms like *cechna-tar* (rt. *can*) vaticinati sunt, *rodama-tar* passi sunt. The forms with active endings however are the most instructive, e.g. 1 sing. *ce-chan*=*cecini*, which points to **ce-cana*, 2 sing. *ce-chan*=*cecinisti*, but 173
corresponding in formation to a Greek *κέκοπας*; but on the other hand 3 sing. *ce-chuin*, which points to *ce-canit*, that is, to the same sinking of *a* to a clearer vowel, as has become the rule in Greek in the same place. We have finally Latin, where at any rate in the 1 plur. e.g. in *tutudi-mus* the short *i* precisely corresponds to that of Sanskrit, and may be weakened from *a* just as well, somewhat as in Lat. *māchina*=Dor. *μαχάνα*.

On the other hand all kinds of controversies have been raised by the long *i*, which the careful investigations of recent Latin grammar have shown to be the vowel which at a very early date terminated the Latin perfect stem. But by the side of the long *i* of *fuīt*, *cēpīt* even in early times *ē* shows itself: *fuet*, *dedet*; so Falisc. *dedet*, Osc. *deded* (Corssen Ausspr. i². 725) and later on *ei*, which in this place, as in many others, was not a genuine diphthong, but only an intermediate sound between *e* and *i*: *fueit*, *dedeit*. The long vowel was always retained in the 1 sing. and 3 plur. (*dedērunt*), though in the latter alternating with the short vowel (*dedĕrunt*), and besides the common 3 sing., is established in the second by *interieisti*.[1] On the other hand there is not the slightest trace in the 1 plur. that the *i* was ever long. The length of the vowel in the forms quoted, to which sufficient attention had not been previously given, furnished Corssen with his reason for separating the Latin perfect completely from the Greek, and connecting it with a formation of the aorist in Sanskrit, characterised by the long *i*. This cannot possibly be approved. The Latin perfect is proved by the reduplication, which attaches to it from the first, to be akin to the Greek and Sanskrit perfect, while the Indian aorists like *a-kram-ī-m* quoted by Corssen following Aufrecht are entirely without reduplication. The Latin perfect

[1] This isolated example is regarded as corrupt by Jch. Schmidt Vocal. ii. 345. But cp. *οἴδησθα* p. 390.

resembles the Greek in that a past tense, the pluperfect, and a future are formed from its stem, and indeed both in a manner analogous to the
174 Greek, while the formation of a past tense from an aorist would be quite unheard of. But there are other considerations of the most important kind. The Latin perfect is proved to be a principal tense corresponding to the present in the first place by its employment as a so called *perfectum logicum*, secondly by the fact that a periphrasis with the incontestably present form *sum* is used for it in the passive, and thirdly by the fact that in Latin too there are at least some perfect-presents *odi, coepi, memini*. The case therefore stands thus. No one will readily succeed in pointing out in any one peculiarity of the Latin perfect a hindrance in the way of connecting this tense with the Greek perfect, with the one exception of the long *i*. But even this hindrance, which has strangely enough seemed to some scholars quite insurmountable, may be set aside. Even supposing—what I do not admit—that we chose to look upon this long *i* as very ancient, and to compare it only with such Sanskrit forms, as show the same sound, from the rich stores of Indian forms, now garnered by Delbrück, some might be drawn which have a much better claim to be compared with the Latin perfects than the aorists quoted above. Delbrück in § 187 collects forms which have *a long ī between stem and suffix*. Among these are not only present forms, some of which are very common, like *bravī-mi* I speak, but also present forms from *intensives*, like *dardarī-mi* from rt. *dar* split, *nōnavī-ti* from rt. *nu* cry, *bōbhavī-ti* from rt. *bhū* be. In §§ 154 ff. this method of formation is discussed more in detail. Since, as we have seen, the perfect is originally an intensive present, nothing prevents us from comparing the *ī* of the Latin perfect with this *ī*, as has been done by Westphal Lat. Verbalflexion p. 162, so that e.g. *bōbhavī-ti* and *fūit* (for this is the oldest recorded form) would be essentially identical. For we may certainly trace *fūit* back to an older *fe-fovī-t*, and this form would differ from the Indian intensive form only by the weaker vocalism of the reduplication
175 syllable. I am however by no means inclined to lay any especial weight upon the agreement of the two languages in the *ī* in the case of reduplicated forms. But in any case the occurrence of a long *i* elsewhere than in the aorist proves that this vowel is by no means specially characteristic of this particular tense, and hence that the *ī* of the Latin perfect cannot give the slightest reason for explaining this as an aorist. But a further perspective is opened by the fact that even Greek is not wholly without forms in which instead of the usual short *α* we have at the end of the perfect stem another vowel, and that a long one; not indeed *ī*, but *η*. I have already pointed this out in Stud. i. 1, 246. Here we must enter on the question more fully. First then the evidence.

We have the authority of the Heraclean Tables for the two infinitives *πεπρωγγυενκῆμεν* i.e. translated into Attic *προηγγυενκέναι* (i. 155) and *πεφυτευκῆμεν* (i. 142), for which I may refer to Meister Stud. iv. 422 f. As with the infinitive terminating in *-μεν* any notion that the long vowel originated in compensatory lengthening is excluded, we must here assume organic length: thus we arrive at a Doric perfect stem in *η*, corresponding to the ordinary stem in *ᾰ*. That this method of formation was not limited to the Dorians is plain from the Aeolic form *ϝοίδη-μι*, quoted on p. 383 for its termination. Hesychius gives only the 1 sing. *γοίδημι*, but in Anecd. Oxon. i. p. 332 l. 3, the 2 sing. *οἴδης* is also mentioned, and in the Et. M. p. 618, 55 *οἴδησθα*, developed '*κατ' ἐπέκτασιν*,' though the

latter is quoted only to get from it to *οἶσθα*, for which another grammarian of the Et. M. suggests a further possibility. *οἴδησθα* is also accepted by Lentz Herodian i. 460, 1. The most striking parallel with this perfect stem *ϝοιδη* is furnished by the isolated Ch.-Sl. 1 sing. *vědě* (I know) (infin. *vědĕti*), to which Leskien has called my attention. Similar perfect forms also meet us in several passages in different M.SS. of Theocritus: *ὀπώπη* (3 sing.) iv. 7, *λελόγχη* iv. 40, *πεφύκη* v. 33, 93; xi. 1, *πεποίθης* v. 28, *πεπόιθης* x. 1, though always with various readings: *ὀπώπει*, *πεποίθεις* etc. The latter forms have been adopted in modern texts, on the assumption of a transition of the perfect into the thematic present formation; and certainly evidence for this is not lacking. Morsbach too in his careful dissertation 'de dialecto Theocritea' Pars 1. 176
Bonn 1874 p. 70 decides in favour of the *ει* on the preponderating evidence of the best M.SS. Anyhow the frequency of the *η* remains noteworthy. In Epicharmus also (p. 75) where Ahrens writes *γεγάθει*, there is authority for *γεγάθη* as well as for *γεγαθεῖ*. We must admit that the authority for these third persons perfect in *η* is not quite trustworthy. The Lesbian Aeolic infinitives however in *-ην*, *τεθνάκην* Sappho 2, 15 *ἐπιτεθεωρήκην* C. I. 3524, 19 are undoubted and unassailable. But these too are considered to have been formed in imitation of the present infinitives in *-ην*, like *φέρην*. This view may be supported by the fact that the participle in this dialect regularly has the ending of the present participle in *ων*. Another view however is also possible. The infinitive termination *-εν*, discussed on pp. 341 ff. may have been independently attached to the stem ending in *η*. Cp. also p. 339. The Doric perfect infinitive in *-έμεν* (Ahrens Dor. 331) is also very remarkable: *ἀντιπεπονθέμεν* Archimedes de plan. aequ. p. 8. The similarly formed *προειδέμεν* in a fragment of Archytas (Stobaei Florilegium, recogn. Meineke iv. p. 206, l. 21) can hardly be reconciled with the context, and hence cannot be regarded as certainly established (Nauck Bulletin de l'Acad. de St. Pétersb. 1877 p. 383). This form cannot have been formed on the analogy of the present, for, as we have seen above p. 339, the termination *-μεν* is quite unknown to the Doric thematic present. It is only in forms of a primitive formation like *θέμεν*, *δόμεν*, *ἀσκηθῆμεν* that this infinitive ending finds a place. It follows that *ἀντιπεπονθ-έ-μεν* is formed from a stem in *ε*, i.e. from a stem of the same kind as that which underlies the common Greek forms conj. *εἰδέω*, opt. *εἰδείην*, inf. *εἰδέναι*, fut. *εἰδήσω*. The infinitive in *-έ-ναι*—for it is wrong, as we saw on p. 344, to take *-έναι* as the termination, is evidently related to that in *-έ-μεν* just as *τιθέ-ναι* is to *τιθέ-μεν*. Hence we see that perfect stems in *ε* are not wanting even to the Attic-Ionic dialect, though it is only *εἰδε* which is carried out throughout. But the widely extended perfect infinitives in *ε-ναι*, the only forms used in Attic, carry great weight in the discussion of this whole question. No one will readily deny that forms like *γεγονέ-ναι*, *πεπονθέ-ναι* are of the same origin as *εἰδέ-ναι*. Hence in these too the
ε is an element of the stem, not of the ending. We have to add finally 177
the remarkable Doric feminines of the participles in *-εῖα*, which occur in four forms established by inscriptions: *ἐρρηγεῖα* Tab. Heracl. i. 18, 23, 28, 34, 36, 39, 42, *ἐπιτετελεκεῖα*, *ἐστακεῖα*,[2] *συναγαγοχεῖα* C. I. no. 2448, 26, 27, 28. Ahrens further conjectures that in the letter of the Pytha-

[2] The active or transitive force of this form is worth notice.

gorean Myia (Orelli no. 13), the unintelligible *ποτε οἰκείας* of the M.SS. should be corrected, not to *ποτεοικνίας* with Koene ad Greg. Cor. p. 191, followed by Hercher Epistolographi Graeci p. 608, but to *ποτεοικείας* i.e. *προς-εοικνίας*, which is very probable. The explanation of this form has been hitherto extremely difficult. Meister, who attempted it in Stud. iv. 387, in order to explain *ἐρρηγ-εῖα* goes back to *ἐρρηγ-ϝασ-ια*. But as the vowel of the participial suffix *-vat* or *-vas* appears without exception as *o* in all Greek dialects, and in the case of the masculine and neuter in the Heraclean dialect itself (*πεφυτευκότα* etc.), it is extremely improbable that it passed sporadically into *ε* in the feminine, and that too before the rejection of the *σ*, that is at a very early period. Dialectical phenomena are as a rule to be explained from phonetic changes of a comparatively recent time. Hence evidently any explanation recommends itself to us more which spares us the long and circuitous route to the Indo-Germanic primitive forms; and such an explanation presents itself unsought, if we remember that this same Heraclean dialect formed the infinitive in *-ῆ-μεν*. The *e* in **ἐρρηγῆ-μεν* which we may deduce, and that in *ἐρρηγε-ῖα* were certainly of one and the same origin. I conjecture the following preliminary stages, all belonging to the specifically Greek period of the language **ἐρρηγε-νια* (cp. Hom. *πεπτηνῖα*, *ἐγγε-γα-νῖα*, *βεβα-νῖα*), **ἐρρηγε-ϝια*, **ἐρρηγε-ῖα*.

Now that we have thus demonstrated in the Greek perfect various traces of a stem-forming *e*, sometimes long, sometimes short, we may return to the Latin perfect, and find in the relics of an *e* in the Greek perfect a very important additional reason for connecting this tense with that which bore the same name in Latin. For there are not wanting
178 cases, in which a Latin vowel fluctuating between *i* *e* and *ei* answers to a Greek *e* which has come from an original *a*, as e.g. in the negative particle *ne* (*nei*, *ni*) by the side of the Gr. *νη* in *νήποινος*, *filius* (Umbr. acc. pl. *feliuf*) by the side of *θηλαμών*, *sēmi* and *sin-ciput* by the side of Gr. *ἡμι*. Thus the parallel between Aeol. *ϝοίδη-μι*, *ϝοίδη-σθα* and Lat. *vīdī*, *vīdīstī* is completely justified. In the 3 pl. indeed the ordinary form *vidērunt* has the long *ē*.[3] Had the Lesbian Aeolians formed a 3 pl. from the disyllabic stem *ϝοιδη* on the analogy of *ἴ-σαντι*, it must have appeared as *ϝοιδή-σαισι*. In other formations from the Latin perfect stem, as in the 1 plur., the short vowel comes out distinctly. There is really hardly any more reason for holding that *vīdīmus* is shortened from *vīdīmus* than for holding that in *γεγόνα-μεν* or Skt. *ǵaǵāni-ma* or Goth. *vitum* the short vowel took the place of an earlier long one. Conjunctives like *vīdĕ-rim*, futures like *vidĕ-ro*, pluperfects like *vidĕ-ram* show the short *e*, and thus resemble Greek forms like *πεπονθέ-μεν*, *γεγονέ-τω*. Finally the fluctuation of the quantity in the 3 pl. now first becomes properly intelligible. While in the other forms the usage became firmly fixed, here we may recognize both analogies side by side, the formation from a stem in *ē*, which became the prevailing one: *vidērunt*, *stetērunt*, and that from one in *ĕ*: *stetĕrunt*. *Stetĕrunt* is to *stetērunt* as *πεπονθέ-μεν* is to *πεφυτευκῆ-μεν*. In this as in other cases I

[3] Joh. Schmidt's conjecture (Vocal. ii. p. 345) that the length of the vowel is due to the influence of the following *r* must remain improbable, until some reason is discovered why in numberless other instances, e.g. in the infinitives in *ĕre*, in the conj. impf. in *ĕrem*, in widely extended formations like *genĕris*, *viscĕra*, and in the whole past tense *ĕram* the *r* had no lengthening force.

incline more and more to the view that the quantity of the formative syllable was not always from the first quite fixed. Quantitative indefiniteness or the existence side by side of a long vowel and a short one, seems to me, especially for early times, not at all an inconceivable thing. By these considerations however we are brought back to another analogy for the *e* in the perfect.

We learnt previously the existence of Old Indian intensive forms from stems in *ī*, but declined to regard the agreement in this vowel as 179
the sign of any particular identity of formation. Now, after we have seen how many different traces of the long stem-vowel can be pointed out by the side of the short one, the question is whether this Old Indian long *ī* was originally the same as the Greek *η*, i.e. whether they do not both go back to a long *a*. The question is connected with the nature of the *ī* in Sanskrit generally, which takes the place of *a* even e.g. in the present formation of the so-called 9th class, *junā-mi* 1 pl. *junī-mas*. Delbrück p. 151 says 'originally the *ā* extended to all the persons: the separation of *nā* and *nī* is of later date.' In these forms too, as in the perfect, there are by-forms with a short *a*. It is therefore very natural to conjecture that we have to do here with the same phonetic processes, and that the *ī* of the reduplicated Sanskrit intensives as the representative of an earlier *ā* may really be compared both with the Doric *η* and with the Latin *ī* (*ei*, *ē*).

Finally we have still to discuss a treatment of the perfect stem, which has hitherto only been mentioned in passing, viz. the complete transition into the analogy of the thematic present. The present-like nature of the perfect made this danger evidently a very near one. The active perfect had, so to speak, to steer between Scylla and Charybdis. The one rock, on which it might split, was the analogy of the past tenses, the other danger the transition into the forms of the present of the incomplete action. Both are as a rule happily avoided. Still the attractive force of the present seems to have been not small, especially in the earliest times. Hence the forms of the kind in the epos. Later on the language of literature almost entirely resisted this tendency, but in Doric and Aeolic dialects the false tendency was developed. The evidence of the latter fact preserved to us is comparatively extensive, so that its range was probably tolerably wide.

The Homeric perfects with a present inflexion are the following. *ἀνώγει* Z 439 and elsewhere, also in Herodotus (vii. 104), with the past *ἤνωγον* I 578. The imper. *ἀνωγέτω* *β* 195 may just as well belong to
the true perfect; the infin. *ἀνωγέμεν* (N 56), to be explained in Homer as 180
an instance of the present inflexion, comes to coincide with the Doric *πεποντθέμεν* discussed above p. 391. We saw on p. 373 that *ἄνωγα* is in origin a perfect. How else would its perfect inflexion be possible? There are many perfects that have become presents; but presents can hardly have become perfects.—*δείδω*, e.g. *Ξ* 44, is shown to be a perfect by its reduplication, which in this case is strengthened after the fashion of the intensives (cp. *δειδίσσομαι*). Evidently *δείδω* is for **δειδίω*, which would be to the extant *δείδια* (N 49), *δείδιας* (*σ* 80) as *ἀνώγω* to *ἄνωγα*.—*κεκλήγοντες*, the reading of the best M.SS. in M 125 and elsewhere, and proved by Didymus on Π 430 to have been one of the two readings of Aristarchus, while *κεκληγῶτες* (cp. *τετριγῶτες* etc.) was the other, is rejected by I. Bekker Hom. Bl. i. 94, but there is strictly

speaking nothing surprising in it, except that it stands alone among Homeric participles. For in view of the variety of the Homeric forms who could find anything surprising in the difference from the singular κεκληγώς? κεκλήγοντες occurs with the same variant in Hes. Scut. 379, 412.—We have also in Hes. Scut. 228 the uncontested ἐρρίγοντι ἐοικώς. It is worth noticing that all these four epic perfects are always used as presents, and hence it was all the easier for them to take the form of the present.

The perfects in ω are most commonly denoted as Sicilian and specifically Syracusan; for which cp. Ahrens Dor. 329. Herodian (ii. 830) εἰώθασιν οἱ παρακείμενοι τρέπειν τὸ ᾰ εἰς ῶ καὶ ποιεῖν ἑνεστῶτα. πολὺ δὲ τοιοῦτον ἔθος παρὰ Συρακουσίοις· ὄλωλα ὀλώλω, δέδοικα δεδοίκω, καὶ τὸ κέκλυκε (imperat.) δὲ παρ' Ἐπιχάρμῳ ἀπὸ θέματος τοῦ κεκλύκω.—δεδοίκω occurs in Theocr. xv. 58. These too are purely present in meaning. The second and third persons in -εις and -ει, belonging to them with the variants -ης and -η, have been already mentioned on p. 390. Among these there are some perfects of present meaning e.g. γεγάθει=γέγηθε Epich. 75, but also unmistakeable perfects of completed action e.g. ἀλιφθερώκει Sophron. fr. 63, πεφύκει Theocr. v. 33. To this group of forms belong also the Doric infinitives in -ειν, also mentioned above, of which γεγόνειν
181 (by the side of εἰρηκότα) and [ἀμφι-]βατήκειν are recorded on a Rhodian inscription (C. I. 2905 B, l. 6 and 7). γεγάκειν occurs in Pindar Ol. vi. 49, κεχλάδειν fr. 57 Be.⁴, πεφύκειν in Epicharmus fr. 97, δεδύκειν in Theocr. i. 102. Hesychius gives also ἰηγορεῖν, probably an error for ἠγόρειν, with the explanation ἐγρηγορέναι Λάκωνες, a word discussed in Stud. vii. 393, and κατατεθήπειν· θαυμάζειν. Participles of the like kind are quoted by Ahrens from Archimedes: μεμενάκουσα, ἀνεστάκουσα. We may add from the Delphic inscriptions published by Wescher and Foucart (no. 190, 15) τετελευτακούσας. Pindar follows the same fashion in the two present-perfects πεφρίκοντας Pyth. iv. 183, and κεχλάδοντας ib. 179 with κεχλαδώς Ol. ix. 2. Outside Sicily therefore these forms are only in use here and there among the Dorians. On the other hand the Lesbian Aeolic usage in the participle seems to have been more regular (cp. Ahrens Aeol. 148). The Scholion V. on Π 430 describes κεκλήγοντες as Aeolic, with which cp. Herodian ii. 306, 35. πεφύγγων=πεφευγώς is quoted there and in several other places from Alcaeus, and also νενοήκων, εἰρήκων. πεπληρώκοντα is found on the Lesbian inscription C. I. no. 2189 l. 9, ἐπιτετελέκοντα in Conze (Reise auf Lesbos) No. XVII. 1, εὐεργετήκοισαν X. 1, κατελελύθοντος VIII. 2, 9; hence Kaibel justly supplements πεποήκ[ων] in the Lesbian inscription discussed by him (Ephem. epigr. II. xx.).

In all Greek dialects the perfect-present ἧκω is common; it has never quite lost its meaning of completed action, and hence it was rightly explained, even by the ancients, as a perfect. Thus in Anecd. Oxon. i. 212 we read ἐκ τοῦ ἵημι ἧσω ἧκα καὶ ἧκω· ἐξ οὗ καὶ δασύνεται· ἀπὸ δὲ τοῦ παρακειμένου τοῦ ἧκα γίγνεται κατὰ Συρακουσίους ῥῆμα ἧκω, ὡς πεποίηκα πεποιήκω. This view is confirmed, as Ahrens Dor. 345 has noticed, by the gloss of Hesychius ἵκαντι· ἥκουσι. For we have more than one testimony to this ι as Doric, even in an inscription C. I. 2140 b, according to Ahrens's probable explanation of the conjunctive, οὐ γὰρ μὴ συνείκῃ, by συνήκῃ in the sense of προσήκῃ; and εἴκω=ἥκω occurs in Epicharmus fr. 19, 13, εἶκε=ἧκε in fr. 24, 2. Hence *ἧκα—for we must
182 assume this to have been the earliest form of the word—was probably

the perfect of the rt. *ικ* (*ἱκέσθαι*). We may doubtless place here also the feminines of participles of the shorter perfect formation, like the poetic *βεβῶσα*, first found in *υ* 14, then in Soph. O. C. 312, *γεγῶσα* Eur. Med. 405, and the common Attic *ἑστῶσα* (in Herodotus, e.g. v. 92 *ἑστεῶσα*) and *τεθνεῶσα* (e.g. Lys. 31, 22). It would be certainly a mistake to explain this ending *-ωσα* by going back to *-νσια*, the earlier form of the termination *-νια*. We have here to do with later formations. They are all evidently contractions from *-αουσα*. As *ἑστηνῖα* and the like sounded too archaic by the side of *ἑστώς*, while a contraction of *ηνι* was hardly possible, *ἑστῶσα* was formed on the analogy of *τιμῶσα* and similar forms universally familiar. Posidippus went even further in giving after the Syracusan fashion *ἑστήκω* for the 1 sing. *ἕστηκα* (Athen. x. 412).

c) Changes in the Vowel of the stem-syllable.

It is entirely in harmony with the origin of the perfect from an intensive present, that language is in many cases not content with reduplication in this tense, but that as a rule the stem-syllable, if not already long by nature or position, undergoes a strengthening of the vowel. This strengthening of the vowel of the stem is the counterpart to the raising of the vowel of the reduplication syllable, which is found especially in intensives. It is a very ancient phenomenon. In the preference for a fuller vocalism of the stem-syllable Greek agrees with Sanskrit, Gothic and old Erse. The following forms may provisionally serve as examples of this :

Gr. rt. *φαν* perf. *πέφηνα*		Ved. rt. *tan* 3 s. perf. *tatāna*
„ „ *λιπ* „ *λέλοιπα*		„ „ *rik* (free) 1 s. perf. *rirēka*
„ „ *φυγ* „ *πέφευγα*		„ „ *rudh* (break) 1 s. perf. *rurōdha*.

A special agreement of Greek and Sanskrit is found in the fact that the intensification of the vowel in both is attached to the polysyllabic stem-formation. Delbrück p. 119 lays down the rule for the Vedic dialect, 'If the stem-syllable is short, the termination is immediately added : if the stem-syllable is long, an intermediate *i* comes in between this syllable and the termination.' Without agreeing with the assumption of an 183
inserted letter, we may regard the facts observed in the following way. In the Vedic dialect intensification of the vowel occurs only when the syllable of the root receives a kind of protection in the vowel which is added, and which, according to the view we have previously developed, forms the stem. And precisely the same holds good of Greek : *vēda*=*ϝοῖδα*, *vid-má* =*ϝιδ-μεν*. Differences appear indeed in individual instances, for the *a* is treated in particular Sanskrit forms differently from the *i*. On the other hand there is one exception, which is found in both languages in common : *οἶσθα* has the fuller sound, just like the Vedic *vēttha*, in spite of the immediate addition of the terminations. The instances of the agreement of Greek with Gothic and Erse are seen mainly in the differentiation of the *a*, to which we shall return. Latin, on the other hand, in direct opposition to Greek, shows a preference for a short vowel in the root-syllable, as is seen from *pepigi* as compared with *πέπηγα*. As we have preserved to us from Old Latin the form *tu-tūdi* (cp. Skt. *tu-tōda*), which was afterwards replaced by *tu-tŭdi*, we may conjecture that the Graeco-Indian rule was originally not unknown to Latin, but

that afterwards, not without the influence of the accentuation, it changed to the direct opposite in the case of the not extremely numerous perfects, which retained the reduplication. Vowel-intensification in the perfect is evidently an archaic procedure, and hence, as Uhle (Sprachw. Abhandl. p. 63) well puts it, 'the capacity for intensification is so to speak innate in the root.' It cannot be subsequently transferred to later forms, and is confined within very definite limits.

The Greek perfects may be divided, in respect of vocalism, into three groups: those with complete intensification (λέληθα, ἔοικα), those with half intensification (γέγονα, ἔρρωγα), and those without intensification (λέλαμπα, γέγραφα). The last group is the most varied, because the strengthening of the vowel is omitted from very different reasons.

The *first* group embraces not only the forms in which the short vowel of the root passes into the corresponding long vowel, which happens only in the case of a primitive *a*, but also those in which a diphthong appears,
184 which is only the case where there is *ι* or *υ* in the root. From the Greek point of view these two processes, which Sanskrit grammar sharply distinguishes, coincide here, just as in the present (cp. p. 150 ff.). The ᾱ of the Doric λέλᾱθα, the *οι* of πέποιθα and the *ευ* of κέκευθα are completely parallel. The distinction between the so-called *guna* and *vrddhi* is significant only for Sanskrit, not for comparative grammar, and the impossibility of separating these two stages of intensification, which is clearly perceived in every enquiry which extends beyond the limits of Sanskrit, is a main obstacle to all attempts to explain phonetic intensification from accentuation. From the Gothic we may compare with these groups for the most part such words as *ala* preter. *ôl* (sprang up), *bi-leiba* (cp. λείπω) preter. *bi-laib*, *biuga* (cp. φεύγω) preter. *baug* (cp. πέφευγα).

The ᾰ of the root becomes ᾱ or in Ionic *η* in the following perfects:

δέδηα P 253 for *δέ-δηϝ-α, cp. conj. aor. δᾰ́ηται for *δᾰϝ-ηται.

δέδηχα by the side of δάκνω, Babr. 77.

ἔᾱγε i.e. *Fε-Fᾱγε*, Herodot. ἤγε cp. above p. 362, with aor. pass. ἐᾰ́γη (N 162).

ἔᾱδα cp. p. 362, beside εὔᾰδον, ᾄδε (p. 79).

εἴληφα, Dor. εἰλᾱφα (p. 361) by the side of λᾰ́βεῖν.

εἴληχα (ib.) by the side of λᾰ́χεῖν. λελᾰ́χασι· τετεύχασι Hesych. Cp. Merzdorf, Commentationes philologae semin phil. Lips. p. 54.

ἔπτηχα in the Attic orators, beside πτήσσω ἔπτᾰκον.

κέκηδε Tyrt. 12, 28 Be.[3] beside κέκᾰδον.

κέκηφε· τέθνηκε Hesych. beside the Homer. κεκαφήοτι θυμῷ.

κεκληγώς B 222 (cp. κέκλαγγα Xenoph.) beside ἔκλᾰγον (cp. above, p. 285).

κέχᾱνα Dor. (κεχᾰ́ανται Sophron. 51 Ahr.).

κεχηνότα Π 409, other forms in Attic writers, beside ἔ-χᾰνον (above p. 288).

κεκρᾱγα beside ἔκρᾰγον. For the quantity of the *a* in the present cp. Uhle Abhandl. p. 68.

ἐπι-λέλᾱθα Doric (Pind. Ol. 11, 3), λέληθα in Herodot., beside λᾰθεῖν.

μεμηκώς K 362 beside μεμᾰκυῖα and μακών.

185 μέμηνα in Attic poets beside ἐμᾰ́νην.

πεπάγαισι Alc. fr. 34, 2, πέπηγε from Homer (Γ 135) onwards, beside ἐπᾰ́γην.

πεπηλότι a doubtful reading in Nonnus Dion. xiv. 152 beside ἔπαλτο, πάλος.

πεπληγώς X 497. πεπληγυῖα E 763, other forms very isolated in Attic writers beside ἐκπλᾰγῆναι, ἐκπλαγήσομαι.

ἐκπεφάναντι Sophron. 75 Ahr., πέφηνα in the tragedians, more rare in Herodotus and in Attic prose, beside φᾰνῆναι.

σέσηπε from Homer (B 135) onwards, beside σᾰπῆναι.

σεσηρώς Aristoph. Pax 620; other forms also later in isolated usage; Theocr. vii. 19 σεσᾰρώς, fem. σεσᾰρυῖα Hes. Sc. 268.

τέθηπα ζ 168, Herod. ii. 156, beside τᾰφών.

τέτηκα Γ 176, τετᾰκότας Eur. Suppl. 1141 chor. beside τᾰκῆναι.

τετρηχυῖα H 346 beside ταρᾰχή.

The ε of the root becomes η only in

μέμηλε B 25 with μεμηλώς E 708 and plupf. μεμήλει B 614, and also in Hesiod Opp. 238. The reading μεμᾱλότας in Pindar Ol. 1, 89 is very doubtful (cp. Tycho Mommsen ad loc.). But μέμηλε is intelligible only under the hypothesis that the older form of the root μαλ continued to survive by the side of μελ, like βαλεῖν by the side of βέλος, καλεῖν and κέλεσθαι, σταλῆναι and στέλλειν etc., and that from this came *μέμᾱλε, Ionized into μέμηλε. Choeroboscus in a passage cited by Lentz in his Herodian (ii. 795) mentions a τέθηλα as a perfect of θέλω, but nothing is heard of this elsewhere, any more than of his τέτυπα and other forms, which seem to bear the mark of a grammarian's manufacture.

Of an ι in the root, raised to οι, we have the following instances:

δεί-δοικα A 555 and elsewhere in Homer, common in the weaker form δέδοικα from Theognis (v. 39) onwards, must be regarded as the perfect of the stem δικ, which is expanded from δι, and underlies the intensive present δειδίσσομαι (δειδίξασθαι Σ 164) and δεδείκελος· ἀεὶ φοβούμενος Hesych. (cp. Principles ii. 308). For if we take κα as the formative syllable of the weak perfect, the diphthong is hardly intelligible. We 186
shall come back further on to this form as one of great importance for the explanation of the κ.

ἔοικα common from Homer onwards, in Herodotus οἶκα (iv. 82). Forms like εἰκυῖα, εἰκός, εἴξασι will be discussed later on.

λέλοιπα in universal use from Homer onwards.

οἶδα the same, in complete agreement with Skt. *vēda* and Goth. *vait*. The weaker diphthong ει is in the moods etc. still more firmly established in this case than in ἔοικα.

πέποιθα from Homer onwards (Δ 325).

πεφλοιδέναι· φλυκταινοῦσθαι Hesych., διαπέφλοιδεν· διακέχυται beside ἔ-φλιδε-ν· διέρρεεν, φλιδάνει· διαρρεῖ. Cp. Princ. i. 375.

κέχλοιδεν· διέλκετο Hesych. Cp. ib. ii. p. 302. Cp. χλιδή. διακεχλοιδῶς· διαρρέων ὑπὸ τρυφῆς. In Plutarch (Alc. 1) we find διακεχλιδῶς in the same sense.

A υ in the root becomes ευ in

ἔζευχα, the earliest instance of which is in Philostr. Vita Apoll. 2, xiv. 64 (ἐπεζευχότας).

κέκευθα X 118 and also in Attic poets.

τέτευχα, in Homer only τετευχώς μ 423, and so in Demosth. xxi. 150, in Herodot. iii. 14 ἐτετεύχεε.

πέφευγα from Homer (α 12) onwards in poetry and prose.

We have entirely isolated instances in

μέμῡκα, Homeric (Σ 580), with the aor. μῦκε Υ 260, pres. μῡκάομαι, and hence with an intensification of υ to ῡ (cp. p. 157).

εἰλήλουθά by the side of ἐλήλυθα, the former only in Homer and once in Theocritus xxv. 35: cp. above p. 368. Evidently εἰλήλουθα is to the future ἐλεύσομαι as πέποιθα is to πείσω or to the present πείθω. It is the solitary attempt in the perfect to introduce an intensification of υ different from that of the present, just as σπουδή by the side of σπεύδω is an isolated example of the like phonetic change in the formation of nouns. For σπουδή is to σπεύδω as λοιβή to λείβω, while the case is different e.g. with ἀκόλουθος by the side of κέλευθος.

187 The total of these perfects is 39.[4] It is only the monophthongal intensification of the α which is at all a common phenomenon: of this there are 25 instances.

We come now to the *second* group, characterised, as we saw, by half intensification, that is, by the change of the ε which prevails in the present stem into ο. Within this group we can again make three divisions. By far the most numerous has ο in the perfect, by the side of ε in the present: in a few instances ω appears instead of ο by a phonetic affection: in a single instance η passes into ω. The whole phonetic change, which characterises this group, evidently belongs to a later period than the complete intensification. It presupposes the splitting of the α, and therefore has, so to speak, a European character. The diversity of the vowels, which proceeded from an old α, is in fact used, not in Greek alone, to serve, as it were, in the second line for the distinguishing of tenses. We learnt in the case of the thematic aorist to recognise the preference of this tense for ă, and in the case of the present, the preference for ε. In the same way the perfect is fond of the ο. But we cannot talk of a law. The usage may rather be formulated somewhat as follows. The language is not governed by this one tendency alone: it makes use willingly of this very manageable pigment, if so we may call it: but it can get on without anything of the kind. Scholars have long since compared with these Greek processes many phenomena of the Teutonic *Ablaut*; and this is not the first case in which the Teutonic vocalism has offered us some noticeable points of comparison. Only the latter is far more richly developed, and in the case of the perfect is all the more varied, in that a distinction is made between the singular and the plural. But there is agreement thus far, that, as was shown on page 145 the present stem has a preference for the *e*, which may become *i*, while the perfect stem on the other hand prefers in many cases a heavier vowel, which appears on Teutonic soil as *a*, and in Greek has assumed, though perhaps only at a later date, the duller colouring of the *o*. Possibly we have a relic of a relatively older time in the form τέτραφα from τρέπω which crops up in the Attic orators by the side of τέτροφα, and the α which appears in the perfect middle (τέτραμμαι, τετράφαται) and
188 which will hereafter be discussed, is perhaps not wholly unconnected with this α of the active. Hence we may so far compare the Gothic *giba gab* with τρέπω τέτραφα or τέτροφα, *stila stal* with κλέπτω κέκλοφα. According to Windisch there are many instances of a similar relation

[4] ἀνέῳγα, the ω of which depends upon the influence of the digamma, was discussed above, p. 363.

in Erse also: e.g. the present *con-dercar* beside the perfect *ad-chon-darc* (vidi) agrees exactly with δέρκομαι δέδορκα. The stem-vowel of the perfect was unmistakeably felt by the three languages to be a heavier one, so that this phonetic change is in some degree connected with that discussed under the first group, indeed has perhaps been formed in analogy with it, when the splitting of the *a* at a considerably later stage in language created new possibilities. Phonetic variation is as a rule more sought after in an intermediate stage of language than in the earliest. Latin is but little influenced by this tendency, and shows in its perfect hardly anywhere anything that can be compared with the facts mentioned. If any one should be inclined to think of isolated instances like *pello pepuli*, which might possibly be for an earlier * *pe-poli*, like *te-tuli* for *te-tol-i*, a glance at *pulsus* and the O. Lat. *at-tula-t* would upset such a comparison. The Latin vocalism shows the archaic stiffness united with great weakenings. We miss in it almost the whole of the varied life of what I believe to have been the intermediate time.

We now turn to the various perfects marked by an *o*, adding at the end the few instances in which *o* is found over against an *a* in the present.[5] Dialectic variations present themselves here more frequently than in other perfect formations.

γέγονα common from Homer onwards.

δέδορκα in poets from Homer (X 95) onwards.

δέδρομα, ἀναδέδρομε ε 412, ἐπιδέδρομεν υ 357, rare later.

ἐγρήγορα see above p. 368.

εἴλοχα (λέλεγε, λέλογα Hesych.) p. 361.

ἔκτονα from Aesch. (κατέκτονας Eumen. 587) onwards in Attic 189
writers; ἀπεκτόνεε Herod. v. 67.

ἔμμορε p. 361.

ἐνήνοχε with ἤνοκα Hesych. p. 369.

ἔολπα p. 362.

ἔοργα ib.

δι-έφθορας O 128, and again in late prose.

ἀν-ήνοθεν ρ 270, ἐπ-εν-ήνοθεν θ 365, both also as preterites. The present * ἀνέθω (cp. ἄνθος), which must be assumed, does not occur.

κέκλοφας Aristoph. Plut. 372, also in prose.

κέχοδα, ἐγκέχοδα Aristoph. Ran. 479.

μέμονα in Homer (Π 435), other poets (ἐμμέμονεν Soph. Trach. 982) and Herodotus (μεμονέναι vi. 84). The present stem with ε does not occur with the same meaning, but we may compare μένος, Μέντωρ. μέμονα : μεμάασι :: γέγονα : γεγάασι. There is no need to assume a distinct μέμονα, which follows the meaning of μένειν remain, on the strength of Eur. Iph. A. 1495 ἵνα τε δόρατα μέμονε δάϊα.

κατα-νένοχε· συνουσίακεν Hesych. is of obscure origin.

ἐνένοφε· νενέφωται Hesych. according to M. Schmidt, ξυννενοφυῖαν· σκυθρωπήν ib., perfect to νέφω, which is adopted at any rate in the compound ξυννέφει at the suggestion of Cobet Aristoph. Aves 1502: cp. Dindorf on Aristoph. fragm. 142, 349.

πέπομφα quoted from Herodotus and Attic prose.

[5] The forms βέβροχα, ἔστολα, ἔστοφα quoted by Choeroboscus (Herodian ed. Lentz ii. 356, 794, 837) and in part noted as Attic, I do not venture to place in this list, any more than πέπλοχα quoted by Veitch p. 482 from one passage in Hippocrates, while everywhere else this writer has πέπλεχα.

πέπονθα, from Homer (ν 6) onwards, with the isolated participle πεπᾰθυῖα (ρ 555). For the present form with ε we have πένθος.

πέπορδα in Aristophanes.

πέφορβα, only ἐπεφόρβει Hymn. Merc. 105.

τέτοκα, τετοκυίης Hes. Opp. 591, then in Herodotus and Attic writers.

τέτροφα from τρέπω Aristoph. Nub. 858, ἀνατέτροφας Soph. Trach. 1009. In Attic orators τέτραφα crops up, for the most part as a variant for τέτροφα. The latter is preferred by I. Bekker and Sauppe. Weidner reads ἀνατετραφότας in Aeschin. i. 190.

τέτροφα from τρέφω, in Homer (intrans. ψ 237), Sophocles (O. C. 186) and later writers. Here too, though first in Polybius, the variant τέτραφα is found.

190 The change of ε into ο is neglected probably only in the following isolated forms.

βέβλεφα Antipater ἐκ τοῦ περὶ γυναικὸς συμβιώσεως in Stobaeus Floril. 70, 13 : ἀποβεβλεφότες.

ἀν-ηνεχυῖαν· ἀναφέρουσαν Hesych. Cp. ἐνήνοχα and κατ-ήνοκα· κατενήνοχα ib.—ὑπείνεχεν· ὑπέβαλε, ὑπεῖχε ib. is also probably of the same formation.

κεκλεβώς=κεκλοφώς inscription of Andania.

λέλεγα· εἴρηκα Hesych. beside λέλογας· εἴρηκας and on the other hand συνειλεχώς· συναγαγών Hesych., ἐξείλεχα Aristid. 49, 381.

ὀρωρεχότες· ὀρέγοντες Suid.

πέπλεχα by the side of πέπλοχα Hippocr.

πεπυρεχότες Aristot. Probl. xi. 22, πεπυρεχέναι Galen.

Here are altogether only 8 instances, all of a later stamp and some of them quoted as rarities. We may say therefore that the change of ε into ο became the rule.

Besides the 24 instances with ο by the side of ε, there are 3 more forms in which the ο answers to an α in the root : viz.

κέκονα quoted in the Et. Magn. from Sophocles (fr. 896 Dind.), rare elsewhere, with the present καίνω.

λέλογχα in Homer (λ 304) and other poets, and in Herod. vii. 53.

πέποσχα Syracusan, Epicharm. fr. 7 Ahr. Here the present expansion has made its way into the perfect, as in the Skt. *pa-prakkha* (stem *prask*, perhaps for *prak-sk*) and Erse *ne-naisc* nexuit. Cp. p. 198.

Finally there is one form in which under the influence of a digamma once present the ο appears as long, viz.

εἴωθα, from Homer onwards : cp. Brugman Stud. iv. 176 and above p. 363.

On the other hand the long ο answering to the long ε is only to be found in one quite isolated form :

ἔρρωγα, occurring from Aeschylus onwards in Attic poets and prose-writers, while the Heraclean tables give the form ἐρρηγεῖα mentioned above p. 391. Cp. Hesych. κατερρηγότας· διερρηγμένους.

There remains the *third* group, i.e. perfects which from very different
191 reasons do not distinguish this tense-stem by any change of the vowel. We may here again make two subdivisions, viz. perfects whose stem-syllable is already long, and perfects whose stem-syllable remains short.

There is no small number of perfects based upon stems which are always long, and which therefore remain unaltered.

1) With a stem-syllable naturally long.

προ-βέβουλα A 113. If the explanation of the diphthong given on p. 172 was correct, the present formation has here found its way into the perfect, just as in *πέποσχα* mentioned above and in Lat. *iunxi*.

βέβρῑθα in Homer (Π 384) and other poets, beside the present *βρίθω*.

βέβρῡχα in Homer (P 264), Sophocles and later prose writers, by the side of *βρῡχάομαι*.

γέγηθα from Homer onwards (Θ 559), Dor. *γέγᾱθα* (Pind. Epich.), beside *γηθέω*.

γέγωνε also in poets.

δεδίωχα only in Hyperides Lyc. p. 29, 6 ed. Schneidewin, beside *διώκω*.

δεδουπότος Ψ 679 beside *δουπέω*.

ἔρρῑγα beside *ῥῑγέω*: cp. above p. 360.

ἔσκηφα first quoted from Hermippus in Diog. Laert. i. 117 (*ἐπεσκηφέναι*), beside *σκήπτω*.

κεκρῑγότες Ar. Av. 1521 beside *κρίζω*. For *κρῖκε* Π 470 cannot be at once assumed to belong to the same verb.

κέκυφα, ἀνακεκύφαμεν Eur. Cycl. 212, connected with *κῡφός, κύφων*.

κεχλᾱδώς Pind. Ol. 9, 2 and elsewhere, a completely isolated form.— A second perfect of the kind *κεχληδέναι· ψοφεῖν* Hesych. is discussed by Fritzsche Abhandl. p. 51.

πέπληθα Pherecr. Com. ii. 265, and later writers, beside *πλήθω*.

πέπρᾱγα from Pindar onwards.

πέπῡθα, only recorded in *κατα-πέπυθα: κατερρύηκα* in Hesych.; hence there is no evidence of the quantity of the *υ*. But it is certainly long as in *πύθω*.

πέφρῑκα cp. above p. 378. Editors write *φρῖσσον* in Hes. Scut. 171, and the *ι* is long also in *φρίκη, φρικώδης* etc.

ἦρχα. ἠρχότι in a psephisma in the Vitae decem oratorum, Plut. Moralia ed. Wyttenbach iv. p. 414 F. 192

2) Stems with *α* long by position.

κέκλαγγα quoted from Aristoph. (Vesp. 929) and Xenophon, evidently formed in imitation of the present *κλαγγάνω*, and of *κλάγξω, ἔκλαγξα* by the side of *ἔκλᾰγον*. The Homeric form *κεκληγώς* was quoted above on p. 396.

κέχανδα Ψ 268, plupf. *κεχάνδει* Ω 192, bears exactly the same relation to *χανδάνω*. The short *α* of the root appears only in the aor. *ἔχᾰδον*.

λέλαμπε twice in choric songs of Euripides, Andr. 1025, Troad. 1295; cp. above p. 377.

μεμαρπώς Hes. Opp. 207, in Quint. Smyrn. *ἀμφιμέμαρφε*.

πεφύγγων quoted from Alcaeus (Ahr. Aeol. 148); cp. *φυγγάνω*.

The stem-syllable of the perfect remains short with any degree of regularity only in the following cases:

1) In the forms quoted above without a thematic vowel: *δείδιμεν* and *δειδίμεν, δείδιθι, ἵκτην, τέθναμεν, τεθνάμεναι, τέθναθι, ἴδμεν, ἴστε, ἵστον, μέμαμεν, μέματον, ἔσταμεν, ἔσταθι, τέτλαθι, τετλάμεναι*. The only words which show intensification without the support of an added vowel are *ἔοιγμεν* and *εἰλήλουθμεν*. From this consideration we derive a confirmation of our view that the *ε* of *ἐοικέναι, πεποιθέναι* is stem-forming, and not an element of the termination. It cannot be a matter of chance, for the perfect middle, which always adds the terminations directly, is as a rule disinclined to the long vowel: *πεφυγμένος, ᾕκτο*. A small number of

intermediate forms with the diphthong *ει* from stems in *ι* deserve notice, viz. *εἰδέω, εἰδείην, εἰδέναι, εἰδώς*—*εἰκέναι* (Eurip. Aristoph.), *εἰκώς* (from Homer onwards, Φ 254), *εἴξασι* (Attic),—*πέπεισθι* Aesch. Eumen. 599, if we are not there to read with Gilbert *πέπισθι*. This *ει* takes a similar position as a rarity by the side of *οι* to that which *α* holds from roots with *ε* by the side of *ο*, the more so that both sounds, *ει* as well as *α*, are common in the middle: *λέλειμμαι, ἔστραπται*. Deviations from a rule are often signs of antiquity. Is it possible that *ει* originally prevailed
193 also in the perfect as an intensification of *ι*, and only later became weakened into *οι*, not without the cooperation of the desire to distinguish the perfect from the present?

2) The stem-vowel further remains short often before the termination *-νια* in the feminine of the participle: *ἀρηρώς*—*ἀρᾰρυῖα* (O 737), but *ἀρηρυῖα* Hes. Theog. 608, *λεληκώς*—*λελακυῖα* (*μ* 85), *μεμηκώς*—*μεμακυῖαι* (Δ 435), *μεμᾰώς* and *μεμᾰότες* (B 818 *μεμαότε* N 197)—*μεμανῖα, τεθηλώς*—*τεθαλυῖα* I 208, with which *πεπαθυῖα, πεφυυῖα* also agree, but there is no consistency, as is shown by *ποτι-πεπτηυῖαι ν* 98, *τετρηχυῖα* H 346, *τετριγυῖα* Ψ 101, *πεπληγυῖα* E 763. The feminine to *εἰδώς* is now written in our editions sometimes *εἰδυῖα* (*οὐ πρὶν εἰδυῖα τόκοιο* P 5), sometimes *ἰδυῖα* (*ἐνὶ φρεσὶ πάντα ἰδυῖα ν* 417); the feminine of *εἰκώς*, besides the solitary *εἰοικυῖαι* Σ 418 is only *εἰκυῖα*. Perhaps the pronunciation was *ϝεϝιδυῖα* and *ϝιδυῖα, ϝεϝικυῖα* and *ϝικυῖα*. This variation in quantity is limited to the Epic dialect (cp. Uhle Abhandl. p. 68).

3) The rhythm of the perfects with the Attic reduplication, which, when the second syllable is long, prefer the third to be short, was mentioned above on p. 365. Hence we have *ἀλήλιφα, ἐλήλυθα, ἐρήριπα, ὀρώρεχα* and others of the kind.

4) The stem-syllable of many perfects with an aspirate remains short, even without this kind of reduplication, as in *ἤλλαχα, βέβλαφα, βέβλεφα, γέγραφα, δεδίδαχα, λέλαφα, πεφύλαχα, ἔσκαφα*. In many instances we know nothing as to the quantity, e.g. in *διαπέπλιχε· διαβέβηκε, διαπεπλιχώς· διεστώς, κεχηνώς* Hesych. It has often been assumed without any sufficient reason that in such cases the vowel is short. We can hardly say more than that the short vowel before the aspirate is the more common. The reason for this peculiarity is undoubtedly to be sought in the nature of the aspirates. Uhle op. c. p. 70 asks very justly: 'Is it mere chance that the double consonant preserves from aspiration, as it does from intensification? Or may we suppose that the aspirate was felt to be a kind of double sound?' I think we can unhesitatingly answer this question in the affirmative. In fact according to the view established in Principles ii. 9 ff. the aspirates actually consisted in early times of an explosive sound immediately followed by a breathing, and hence were heavier than all other consonants. It is very noteworthy besides that the
194 dental aspirate *θ*, the one which is never denoted graphically by TH, in regard to this perfect formation does not hold quite the same place as *χ* and *φ*: and for our view of the whole phenomenon it is of much importance to remember that it is quite unknown to the older language. The old perfects *εἴληφα, εἴληχα, τέτρηχα, τέτευχα*, as well as *κέκευθα* and *λέληθα* have the intensification of the vowel before the aspirate and prove that we cannot speak of a definite law, but only of a phonetic tendency prevalent especially in Attic.

5) Finally there are still two isolated forms with short vowels to be

mentioned: *ἀκήκοα*, which is commonly used from Aeschylus and Herodotus onwards, and which is evidently for *ἀκήκοϝα*, and may thus be placed with the perfects with Attic reduplication; and *ἐδήδοϝε* and *ἐδήδοϝας*, which exactly agree with this in rhythm, in the metrical inscription, which is unintelligible in its connexion and in every respect extraordinary, 'ex schedis Fourmonti' C. I. No. 15. We can hardly make up our minds to introduce *ad hoc* a derivative **ἐδούω*, constructed like *ἀκούω*.[6] Taking into account the Homeric *ἐδήδο-ται* and other forms to be mentioned subsequently, in which as in *ἐδ-ήδεσ-μαι* a stem expanded by a vowel occurs, it still seems to me (cp. Principles ii. 113) most probable, that the *ϝ* in *ἐδήδοϝα* was intended by the mason to denote the spirant which is naturally developed between *o* and *a*, and which does not differ widely from the English *w*. In any case the form remains quite isolated, for there is no example of a perfect with one original vowel before the other.

d) Consonantal changes in the stem-syllable.

The only consonantal change at all common and therefore of any great importance for the formation of the perfect is *aspiration*. The older grammarians, as every one knows, took the aspirated perfect as well as that characterized by *κ* as the *perfectum primum*, which they distinguished from the *perfectum secundum*, which was characterized by the absence both of the aspiration and of the *κ*. The grammarians of 195
antiquity proceeded more prudently, for they called the second and simpler formation *μέσος παρακείμενος*, a phrase which was intended to denote not that it properly belonged to the middle, but that, like the middle, it had an undefined meaning, sometimes more active, sometimes intransitive. Forms like *κέκευθα*, *τέτευχα*, *πέποιθα*, *πέπρᾱγα*, *πέφηνα*, *ἔᾱγα*, *διέφθορα*, *ὄλωλα* furnished the occasion for this. For where double forms occurred side by side, as in the case of *πέπραγα* and *πέπραχα*, *διέφθορα* and *διέφθαρκα*, *ὄλωλα* and *ὀλώλεκα* the distinction was not superfluous. But it was a mistake to identify this distinction with that of the other so-called *tempora prima* and *secunda*, as was done by Buttmann. He says (i[2] 408) 'The perfectum activi is distinguished in respect of character, for the perfectum 1 has its own character, while the perfectum 2 has always the unchanged character of the verb,' and further in Note 1. 'In order to introduce unity into all these cases we must regard *ά* as the proper suffix of this perfect. This aspiration united with the mute of the labial or palatal organ to form an aspirate, but between two vowels and after a liquid it changed, in order to be still audible, into a *κ*, since in all languages the palatals are most nearly akin to the gutturals.' Buttmann endeavoured to explain the circumstance,—remarkable enough from this point of view,—that the dental consonants, and especially the common *δ* (pres. *ζ*) did not also pass into *θ*, and that e.g. we never find a perfect like **ἤειθα* from *ἀείδω* or **κεκόμιθα* from *κομίζω*, by saying that these verbs in the common forms, future and first aorist, 'by the loss of these letters became quite like the *verba pura*.' It is perhaps not superfluous to call to mind occasionally such attempts at explanation. We know now that the Greek rough breathing is no original sound, but only the

[6] Earlier attempts, like that made by Kuhn de conj. in MI p. 64, to compare this isolated *ϝα* with the Latin perfect in *-vi*, could find but little assent nowadays.

residuum of older and fuller spirants. In the middle of a word the rough breathing could at most between vowels be taken into consideration as the relic of a sigma. After consonants it is quite unknown, and it is utterly impossible to suppose the change of a rough breathing into the strong explosive κ.

Still the notion that the so-called perfectum primum was something essentially different from the so-called perfectum secundum, and the aspiration of the consonant of the root something somehow akin to the κ of
196 the termination -κα, was so firmly rooted, that even Bopp returned to it. But while Buttmann sought to get from ἁ to κα, Bopp conceived the idea of trying the opposite course. What is said in this sense in Vergl. Gr. ii[2] 446 ff. needs no refutation nowadays. Bopp conjectured in the perfect in κα a composition with the substantive verb of the same nature, as that which he had recognized in the sigmatic aorists. The mere existence of the three aorists in -κα, where he regarded the origination of the κ from σ as established, was sufficient in his eyes to explain such a surprising transition as that of the dental sibilant into the guttural explosive as 'very natural' for the perfect too. Even the slight support of which Bopp availed himself in the Church-Slavonic transition of *s* into the spirant *ch* and the Lithuanian *k* in certain imperatives has broken down. For there is a very great difference between a spirant and an explosive, and the *k* of Lithuanian imperatives like *dŭkite* give, has received a much more satisfactory explanation from Schleicher (Lit. Gr. p. 231), so that no one will be likely to find in it hereafter a transfigured *s*. It was a still more odd notion that the aspiration of the consonants e.g. in πέπλεχα had come from κ; hence that πέπλεχα had originated in *πέπλεκ-κα, where one could not help asking why the σ, which was the source of the κ, did not make its appearance here too, for *πέπλεξα would have been just as easy to pronounce as the aorist ἔπλεξᾰ, and forms like εἴξασι, ἴσασι show in what way the σ was employed in the perfect, even though only in isolated instances. For such reasons I have from the first contested Bopp's doctrine on this point, especially in Tempora und Modi p. 191 ff. and in the Elucidations p. 123. Most philologists probably agree with me now in accepting the view expressed first by Pott E. F. i.[1] 42 ff., which may be thus formulated: *The aspirated perfect is not a formation essentially differing from the non-aspirated; the aspiration is to be regarded only as a phonetic affection of the consonant of the root.* (Cp. Schleicher Compend.[3] 724.)

Three facts tend very strongly to confirm this view. First, the
197 aspirated perfect is *quite unknown to the language of Homer.* We may add on the strength of the more correct data, which are now at our command, that it is hardly possible to find an instance of this formation earlier than Herodotus, and even in this writer, if my collections do not mislead me, there is only the solitary ἐπεπόμφεε (i. 85[7]), which reminds us of πομφαγωγεῖ in Hesych. The aspirated perfect is unknown to the tragedians, with the exception of τέτροφα, quoted from Sophocles on p. 400. In Thucydides again we find only Herodotus's πέπομφα. Such forms do not occur in any quantity before Aristophanes, Plato, Xenophon, the orators and later comedians, many only much later. The few Doric formations of this kind will be noticed below. Now if we

[7] For πεποηχέναι (V 106) Stein on the strength of good M.SS. reads πεποιηκέναι.

remember that the Attic writers were especially δασυντικοί, that the aspiration of a tenuis, and especially of a κ and π, is one of the most widely extended phenomena of the Greek language (Principles ii. 107 ff.), and that this affection was always spreading more and more in the popular language, as distinguished from that ruled by literature, as has been proved by W. H. Roscher in my Studien i. 2, 63 ff. we may doubtless say with confidence, that the aspirated perfect is a variety of the non-aspirated, which passed by degrees from the popular usage into that of literature only in the most flourishing time of Attic prose, in view of the increasing demand for active perfects. As soon as a number of common aspirated forms like πέπομφα, κέκοφα, κέκλοφα, πεφύλαχα, ἐνήνοχα from roots ending in a tenuis had established themselves, the genius of the language came to feel that the aspiration was something appertaining to the perfect, so that roots ending in a medial were also treated in the same way: βέβλαφα, μέμαχα, πέπρᾱχα. Both kinds of aspiration were favoured by the circumstance that even in earlier times there were not a few perfects whose aspirate was either as in εἴληχα, εἴληφα, κέκυφα, γέγραφα, ἔστροφα original, or at any rate not in the first instance and not solely proper to the perfect, like ἀλήλιφα by the side of ἀλείφω (rt. λιπ), δεδίδαχα by the side of διδαχή (cp. *doc-eo*), λέλαφα (λέλαφας Aristoph. fragm. 492) by the side of λαφύσσω (Princ. i. 453), ἔσκαφα (rt. σκαπ Princ. i. 204) by the side of σκάφος, σκάφη.

A second argument of great importance for this question is found in 198
the fact that the same kind of aspiration occurs from Homer onwards in the 3 pl. of the perfect middle. Homeric forms of the kind, the authorities for which will have to be quoted more precisely later on, are δειδέχαται (rt. δεικ), τετράφαται (rt. τρεπ), ἔρχαται (rt. Fεργ), ὀρωρέχαται (rt. ὀρεγ), τετρίφαται (rt. τριβ), to which are subsequently added ἐτετάχατο, εἰλίχατο, ἐσεσάχατο. It is very noteworthy that here too the medial of the stem is treated just like the tenuis. Evidently these forms, the aspiration of which can never be satisfactorily explained from added sounds, were the precursors of the Attic active perfects. What in the middle remained an isolated affection, and afterwards completely disappeared, became in the active a common process, favouring the coinage of new forms, wherein we may admire the still youthful formative tendency of the Greek language, which is reluctant to leave unused what was once at its command.

A third fact, which we press into our service, is that the vocalism also makes any essential difference between the non-aspirated and the aspirated perfect impossible. If the interior vowel change were something reserved for the non-aspirated perfect, we cannot understand why, in spite of the aspiration, we discover vowel-intensification in δέδηχα (δάκνω), ἔπτηχα (beside ἔπτᾰκον), ἔζευχα (ζεύγνυμι), and on the other hand the change of ε into ο in εἴλοχα, ἐνήνοχα, κέκλοφα, πέπομφα, τέτροφα (rt. τρεπ). In other words a change of vowel and aspiration are by no means mutually exclusive, and we are quite without any criterion for completely different methods of formation of this tense, with the sole exception of the κ. We can only distinguish two kinds of the active perfect, that without κ and that with κ.

The aspirated perfect has been subjected to a thorough discussion by Uhle in the 'Sprachwissenschaftliche Abhandlungen' p. 59 ff., which amounts in part to a re-establishment of the old distinction. Though

the diligent collections, which are offered there, call for acknowledgment, and though many of the points of view suggested by Uhle deserve all consideration, I cannot agree with his general result. I gladly admit that vowel-intensification, with the exception of the change from ε into ο, did
199 not present itself to the genius of the language as anything essential to the perfect and peculiar to it, and it is noteworthy that the long vowel or diphthong—just as in the future and the sigmatic aorist—is very often common to the perfect stem with the present stem: τέτηκα, κέκηδα, πέφευγα, ἔρρηγα. But on the other hand we have learnt to recognise instances enough in which a perfect with an intensified root-vowel corresponded to a present without this, like πέφηνα and φαίνω, εἴληφα and λαμβάνω. Cases of the kind are given by Uhle himself on p. 66. These in connexion with the change of ε into ο, which even according to his view is characteristic of the perfect, show that the genius of the language had the bestowal of a peculiar vowel-character upon the perfect, so to speak, hovering before its eyes as its goal. Uhle lays stress upon the observation that an unexpanded present, (according to our classification, a present of the first class) never answers to a perfect with an intensified vowel, and hence e.g. a parallel to the Skt. *tudā-mi* perf. *tutōda*, that is an imaginable *φύγω πέφευγα is never found. But the reason of this lies not in the perfect but in the present formation. For on p. 145 ff. it was shown that the Greeks allowed presents of this short kind almost exclusively where there is ε in the root-syllable, or with a double consonant, and on p. 278 we saw how such present stems passed into aorists. There are only three presents with a short α actually in use in Attic ἄγω, γράφω, μάχομαι, and scarcely a single one with any other short vowel but ε. But in the case of the numerous stems with ε in the present the ο has quite regularly established itself by its side as the vowel of the perfect. The surprising part of the fact quoted by Uhle therefore properly confines itself to this, that γράφω and μάχομαι have no perfects with η in the stem-syllable, and as we saw on p. 402 the η is not at all to be expected before an aspirate.

The relations of the vowels in the aspirated perfect, on which Uhle lays much stress, we had occasion to discuss on p. 402. Uhle's rule, according to which 'a double consonant or natural length protects alike from intensification and from aspiration,' has according to his own admission 11 exceptions, to which however we must add also the 4 instances in which an aspirated form is on record as well as a non-aspirated one: ἀνέῳγα and ἀνέῳχα, πέπρᾱγα and πέπρᾱχα etc. The true number of the
200 exceptions therefore amounts to 15, certainly a very considerable one. A still more thorough examination of the individual instances would give occasion for a good many remarks even upon the 49 'regular' formations, which Uhle assumes. I think however I have already dwelt long enough upon this point. No one can fail to see that aspiration in the perfect so far remained faithful to its origin as a phonetic affection, that while it made other distinctive marks superfluous (cp. ἤλλαχα, πέπλεχα) it never completely excluded them (cp. εἴληφα, πέπομφα).

I now add a list of the aspirated perfects, in alphabetical order:

ἀγήοχα with the Theraean ἀγάγοχα will have to be discussed later on.—The regular ἦχα is in use from Xenophon onwards (συνῆχας Memor. iv. 2, 8, προὔηχασι Demosth. xix. 18).

βεβλαφέναι Demosth. xix. 180, *κατεβλαφότες* cp. above p. 358.
ἀπο-βεβλεφότες quoted above p. 400.[8]
δεδάρδαφε· καταβέβρωκε Hesych.
δέδειχα· ἔδειξα Hesych., *δέδειχεν* Alexis Com. ed. Meineke iii. p. 517.
δεδηχώς quoted already from Babrius p. 396.
δεδίωχα from Hyperides p. 401.
ἐδεδόχεσαν from *δοκέω* Dio Cass. xliv. 26 ed. Bekk.
ἔζευχα quoted from Philostr. p. 397.
ἐνήνοχα cp. p. 369, in Attic prose.
ἔπτηχα in Attic orators (Isocr. Lyc. Dem.).
ἔρρηχα first in the LXX.
ἐρριφέναι Lys. x. 9, 21.
ἐσκηφέναι cp. above p. 401.
ἀν-έῳχα, ἀνεῳχότα τὰ σημεῖα τῶν οἰκημάτων Dem. xlii. 30, Menander Com. iv. p. 133.
ἀπ-ήλλαχα Xen. Memor. iii. 13, 6, *διήλλαχεν* Dionys. Com. iii. p. 547 v. 10, *μεταλλαχότος* inscription from Thera C. I. Gr. no. 2448, l. 12.
κεκάλυφα Origenes in Veitch p. 312.
ἐπι-κεκηρυχέναι Demosth. xix. 35. 201
κέκλοφα already quoted p. 399, from Aristoph., also in Plato and Demosth.
κέκοφα in Lysias, Plato and Demosth. as distinguished from Homer. *κεκοπώς*.
ἐ-κεκρατηρίχημες Sophron. p. 71 Ahr.
λέλεχα quoted from Galen, *εἴλοχα* (cp. p. 361) *συνείλοχα* Dem. xxi. 23.
μεμᾰχότες, μᾰ̃ζαν μεμαχότες Aristoph. Equ. 55.
συμ-μέμιχα Polyb. Dio Cass. Galen.
ὀρωρεχότες only quoted from Suidas.
πέπαιχεν Plut. Dem. 9.
πέπλεχα and *πέπλοχα* Hippocr. cp. p. 400.
πέπομφα in Herodotus and Attic prose. Cp. 404.
ἐμ-πεπήχεσαν Dio Cass. xl. 40.
εἰα-πεπληχός doubtful reading in Hippocr. Cp. Veitch p. 486.
πέπρᾱχα quoted from Xenophon, Dinarchus, Demosth. (xix. 17) and Menander (Com. iv. 254).
πεπυρεχότες p. 400, from Aristotle.
πεφύλαχα in Plato, Xen., Din.
τέταχα Xen., *συντέταχε* Plato Leges 625.
τέθλιφα Polyb. xviii. 7 *τεθλιφότων*.
τέτριφα, ἐπιτέτριφεν Aristoph. Lys. 952, *συντέτρῐφεν* Eubulus Com. iii. 235.
τέτροφα and *τέτραφα* from *τρέπω*. Cp. above p. 400.

This makes altogether 37. The quantity of the stem-vowel is everywhere marked, where necessary, as far as possible. Among these the stems with a tenuis and a medial are almost equally represented. The

[8] According to Veitch p. 127 *βεβρυχώς* Quint. Smyrn. iii. 146 would belong here, for he derives it from *βρύκειν* to gnash the teeth, but nothing prevents us from allowing the lion, which is described there, to roar, and hence from adopting the *βρύχω* mentioned on p. 401 as belonging to *βρυχάομαι*.

two forms κεκρατήριχα (ἐκεκρατηρίχημες cp. Ahrens Dor. 332) and πέπαιχα deserve especial notice; for in them the guttural which comes out in forms like κρατηριξῶ, παιξοῦμαι, παίγνιον shows itself also in the perfect. The former example further proves that aspiration in this place was not unknown to the Dorians also, a fact for which we are the more glad to find evidence, because it happens that almost all the
202 other forms are pure Attic. But the fact that there is evidence for the aspirated form from two different Doric districts, Thera and Syracuse, hardly leaves a doubt that this method of formation extended to that dialect also.

So much for aspiration in the perfect. A counterpart to this is supplied by the sinking of a π or φ into β, which is established in three forms: ἐνραβῶς· ἐγγράψας Hesych., κεκλεβώς inscription from Andania (published by Sauppe Gött. 1860) line 78, παρτετύμβει· παραφρονεῖ, ἠμάρτηκεν Hesych. The first of these forms admits of some doubt. Probably a γ has dropped out after the ν and the accent is wrongly given; hence we should read ἐν-γραβώς. The reduplication has been neglected, as in ἐγγύημαι. For κεκλεβώς Sauppe assumes a present *κλέβω by the side of κλέπτω on the analogy of the late κρύβω by κρύπτω. But the consonant of the root in κρύπτω is φ, in κλέπτω π. As there is no trace of any word *κλέβω, it seems to me more probable that the softening of π to β was limited to the perfect. παρτετύμβει shows by its reduplication that it is a perfect, and by the apocope of the preposition and the present ending that it is a Doric form. Taking into consideration τυμβογέρων· ἐσχατόγηρως καὶ παρηλλαγμένος τῇ διανοίᾳ [Anecd. Bekk. 65, Phot.], which can hardly have anything to do with τύμβος grave, I conjecture a perfect τέτυμβα with the intransitive meaning so common with the older method of formation, direct from the rt. τυφ, which has elsewhere only in τυφόω, τετύφωμαι, derived from τῦφος, the meaning 'to be surrounded with mist, darkened.'

Two epic forms resembling each other, but deviating widely from the formation of these perfects, are πεφυζότες and μεμυζότε. πεφυζότες we find thrice in Book Φ of the Iliad (6, 528, 532), once in Book X (1=Φ 6). In Princ. ii. 96 I think I have disproved the view that the ζ here arose from a combination of the final consonant of the root with the ϝ of the participial suffix ϝοτ. The ζ is there explained by the analogy for φῡζα. Granted that there was a masculine φῡζο, a perfect stem πεφυζα might have been formed, just like the present and aorist stems θερμο-, χραισμο-. We might also conceive a present *φυζω= Lat. *fugio*: the expansion would then have made its way into the perfect, just as in the Syracusan πέποσχα, quoted above p. 400, or like
203 the nasal of λέλογχα, πεφύγγων, κέχανδα. . μεμυζότε we know only from a quotation of Antimachus in Eustathius (on Od. ν 401) going back to Herodian (i. 444). The old grammarians regarded these forms, like Hesiod's λελειχμότες or λελιχμότες (Theog. 826), as syncopated from πεφυζηκότες etc., but no one will now believe this. For the third of these forms hardly any other explanation than that from a noun-stem is possible.

e) The Perfect with κ.

This form too, which is very widely extended in Attic Greek, we can see becoming more common by degrees in the period of the language

for which we have historic testimony. As will be shown in detail further on, there are only about 20 forms of the kind in Homer; while the total number of the perfects in κ quoted by Veitch reaches, as I count them, to 268. If we remember that the meritorious work of this industrious collector excludes all quite regular forms, and therefore very many derived verbs, we may venture to assert that the total number of these forms may be fairly put at least at 300; and it is very remarkable that hardly a fifteenth part of these is Homeric. But the different law of formation is of still more importance than the numerical relation. The language of Homer has perfects with κ only from stems ending in a vowel. Hence forms like the Attic *πέπεικα*, *ἔσταλκα*, *ἦρκα* are quite unknown to it. Even the existing perfects from vowel-stems like *δεδοικα*, *βέβηκα*, *πέφῡκα* have by-forms without the κ, like *δείδιμεν*, *βεβάᾶσι*, *ἐμπεφυνῖα* There is an especially large number of participles of the kind, like *κεκμηῶτας* by *κέκμηκα*, *τετληῖα* by *τέτληκα*. The formation with κ does therefore exist, in the time of Homer, but rather as experimental than as normal. And even the Attic writers have retained in the forms quoted above p. 387, like *ἕσταμεν*, *τέθνατε*, *δεδώς* traces of the twofold formation. Thus the case is different with this whole class of perfects from what it was in the class previously discussed. We see them gradually making their appearance side by side with the primitive perfects, and supplementing them in a particular direction. For in the case of vowel-stems we can as a rule only get a singular of the perfect by means of κ; we never find a **βέβαα* or **βέβηα*, as was noticed on p. 386. This also serves to explain how it has been possible 204
for scholars to conceive the notion that this κ, which comes in so conveniently to distinguish the perfect forms, was developed purely phonetically between the long vowels supplied by the intention of the language and the *a*. I myself in the Tempora und Modi p. 199 gave my assent to this view, propounded first by Thiersch and afterwards brought orward with greater weight by Ahrens 'Ueber die Conjugation auf MI im Homerischen Dialekt' § 7, 2, according to which the κ arose 'for the avoidance of the hiatus' or 'from the gaping of the mouth.' The more exact observation of phonetic processes, which has come up only since the appearance of that early work of mine, has since taught us that the 'explosive sound of the vocal cleft' commonly called *spiritus lenis*, which is heard between two vowels, when one immediately follows the other, cannot possibly grow into a guttural explosive. We shall hardly find any one nowadays adducing the forms *οὐ-κ-έτι*, *μη-κ-έτι* in support of such a view. The κ here certainly rests on a pronominal particle added to the negation, which occurs more fully in *οὐκί* and with aspiration in *οὐχί*, *ναιχί* (cp. Roscher, Studien iii. 144). Out of thousands of instances where vowels come into contact, this would be the only one in which the contact was avoided by such an insertion. If the science of language in its present position scorns the 'connecting vowel,' it is still less tender to what Westphal calls the 'separating consonant.' I have therefore long ago retracted my earlier view in different places, especially in the 'Elucidations' p. 128. Another view, viz. that the κ originated in *ϝ* or even from *σ*, has been rejected in Princ. i. 79 as not made out. The labial spirant is just as far removed as the dental from the hard guttural explosive. Phonetic violences of this kind are now probably regarded as possible only by one or two here and there.

The only correct way of explaining this is to take the κ, which we never find coming from any other sound, by itself, or in other words to establish analogies for it as a formative element added in this place, and extending by degrees as time went on. In the Principles l. c. I have
205 connected the κ with the root-determinative *k* which we have often found added, especially to roots ending with a vowel. Holding firmly to this further connexion, I now maintain with positiveness that the κ of the perfect is a *stem-forming element*, and as we certainly cannot separate the vowel following the κ from the consonant, the syllable κα is stem-forming. It is true that the stem needs such a suffix only as a noun-stem. But after learning to recognise, under the head of the formation of the present, a large number of suffixes, which though originally intended to denote radical noun-stems, still made their way into the verb, and after finding even in the thematic aorist traces of such suffixes, quite apart from the vowel, we cannot be surprised to meet again in the perfect such a stem-forming consonant.[9] No objection can be brought against this view on the ground that the perfect-stem is already marked by reduplication. Reduplication and noun-suffixes are quite compatible, as is shown e.g. by ἀγ-αγύρ-της (Hesych.), βέ-βα-ιο-ς, κε-κράκ-τη-ς, κε-κρύφ-αλο-ς. I therefore now regard the κα of δέ-δω-κα as directly analogous to the present expansions να, νυ, νο, ανο, το, σκο and to the το and κο which are demonstrated in some few examples, as we saw above p. 281, even for the thematic aorist. Supposing there was a noun-stem βᾰ-κα Ion. βη-κα, by the side of this a reduplicated βε-βᾰ-κα, βε-βη-κα might have been formed, and such reduplicated stems, at a time when the verbal forms were still fluid, might have made their way into the perfect, side by side with the shorter forms, just as the noun-stems δεικνυ, λαμβανο appear by the side of shorter present formations, and forms like ἁλιτο, ἁμαρτο by the side of shorter aorist formations. Such forms characterised by definite distinctive sounds agree with the taste of certain comparatively recent periods of language better than the most archaic kernel-forms, which in any case must receive a more individual
206 shape, much as a richly developed national life demands definite customs and dress, and as similarity and indeed uniformity as a rule extend more and more widely in the course of the life of a language and a nation alike. Hence we cannot be surprised that this κ, which at first only appears here and there, by degrees gets the upper hand, and in time conquers for itself a wide region over which it prevails, and that the peculiarly marked perfects of the older stamp more and more become varieties by the side of it. From such points of view there is still some reason for calling, with Jacob Grimm, the earlier forms which give evidence of youthful creative force, strong, those which have been reduced to uniformity weak.

For the syllable κα in the perfect we may, with our present way of regarding it, adduce three sets of analogies; viz.

1) *Verbal*, from Greek itself, i.e. other verbal forms in which we may recognise a suffix with κ. To these belong

α) In the first place the three isolated aorists, which are always

[9] I find myself here in agreement with Brugman 'Zur Geschichte der präsensbildenden Suffixe' in the 'Sprachw. Abhandlungen' p. 155, without however being able to accept his further conclusions as to the extension of such stem-formations.

classed with it, ἔδωκα, ἔθηκα, ἧκα. We must come back afterwards to these forms, which evidently follow the sigmatic aorists as regards their inflexion, because they can only be understood in connexion with other unsigmatic formations, in which *a*, so to speak, plays the part of the thematic vowel.

β) A small number of present forms, where the κ is evidently of the nature of a suffix. This is most plainly seen in ὀλέκω. The inflexion of this verb is based upon the two-fold verbal stem ὀλ and ὀλε and the two-fold present stem ὀλλυ (from ὀλνυ) and ὀλεκ°/ε. The stem-form with κ is in Homer limited to the present stem: ὀλέκουσιν Σ 172, πεζοὶ μὲν πεζοὺς ὄλεκον Λ 150, ὀλέκονται Π 17, ὀλέκοντο Α 10; it also occurs a few times in the tragedians (ὀλέκεις Antig. 1285, ὠλεκόμαν Trach. 1012) always in melic passages. In Herodotus first (i. 45) we come across the perfect ἀπολώλεκα, which thenceforward takes over the transitive function as compared with ἀπόλωλα. Evidently the longer perfect is related to the corresponding present much as πέπληθα is to πλήθω. On the Cyprian inscription of Idalium there is (l. 16) the form *to-ko-i-je*, which Deecke and Siegismund (Stud. vii. 243) reproduce by δωκοίη (Ahrens, probably more correctly, by δώκυιε Philol. xxxv. 68), and refer to a present 207
*δώκω, which is to δέδωκα as ὀλέκω is to ὀλώλεκα. Even if the Cyprians had by the side of this optative only the indicative of a past tense *ἔδωκον or even the common ἔδωκα, the form would be of importance for the formation here under discussion. For mood-forms hardly ever came from aorists with κ.[1] By the side of ἵληθι and ἱλάσκομαι we find φ 365 the conjunctive ἱλήκῃσι: εἴ κεν Ἀπόλλων ἡμῖν ἱλήκῃσι καὶ ἀθάνατοι θεοὶ ἄλλοι. The meaning is as little that of a perfect, as that of the optative in the Homeric hymn. to Apoll. Del. 165 ἱλήκοι μὲν Ἀπόλλων Ἀρτέμιδι ξύν. We are therefore justified in assuming a present ἱλήκω, the κ of which does not extend beyond the stem of this tense.

The case is different with ἐρύκω, which was thoroughly discussed on p. 292. Here the aorist ἐρύκακον shows the same guttural, and this appears also in ἐρύξω, ἔρυξα. The κ has therefore more of the character of an expansion of the root. For no one will doubt that ἐρύκω is an extension of the stem ἐρυ protect.—The same judgment is to be passed upon βρύκω in its relation to the rt. βορ (βιβρώσκω cp. Princ. i. 78, ii. 80) and upon διώκω as related to δίο-μαι, δίε-μαι (ib. ii. 309).—Another group is formed by the presents δει-δίσσομαι (cp. above p. 221) and πτήσσω, which are evidently based on the stems δικ and πτακ. Both occur also in forms belonging to other tenses: δειδίξεσθαι, ἔπτᾰκον. To these stems *-jω*, the sign of the I-class, is added as a present expansion. These presents are therefore quite parallel to Latin presents like *fa-c-io*, and *ia-c-io*. Those who agree with me in referring *fa-c-io* to the rt. *fa*=Gr. θε, can regard this form as simply the present to ἔ-θηκα, which we might transfer into hypothetical Greek in the form *θησσω. On the other hand we can hardly say now whether δεί-δοικα is a strong perfect from the rt. δικ or a 208
weak one of the rt. δι. We can here see clearly how all these cases hang

[1] The relation of ἔδωκα, δέδωκα to the Skt. *dāç* worship, offer (*adāçat*, *dadāça*) need not be decided here.—I may mention also that Bergk Jen. Litteraturz. 1875 No. 26 explains the sign, which Deecke and Siegismund take for *je*, quite differently, viz. as *psi*, and hence instead of δώκοιε reads the words as δοκοῖ ψι (=σφίν). With such difficult texts it is impossible to arrive at complete certainty except by repeated examinations.

closely together. Possibly the Homeric ἐγρήσσω also comes from a stem ἐγρηκ or ἐγρηκο, which is not far removed from the perfect ἐγήγερκα, though certainly ἐγρηγόρθασι might suggest another explanation; and the perfect with κ is not quoted from any author earlier than Josephus. —In Apollon. Rhod. we find ὑποδρήσσων (cp. Homer. ὑποδρηστήρ ο 330). *δρη-κ-jω would be related to δέδρᾱκα much as *fac-i-o* to the Osc. conj. *fefaci d.*

γ) As thematic aorists with the suffix κο, we recognised p. 282 ἤμπλακον, on which I did not venture to say anything positive, because of its etymological difficulties, and ἔ-πτα-κο-ν. The latter is related to the primitive κατα-πτή-την (Θ 136) and πε-πτη-ώς (ξ 354) precisely as κέκμηκα to κεκμηώς or as βέβληκα to ξυμβλήτην (above p. 132). The γ of δι-έ-τμᾰγε-ν appeared to us also of the same nature as this κ, so that we have again the parallel : τέ-τμη-κε : τμῆ-σι-ς :: ἔ-πτακο-ν : πτή-την.

δ) There are also some isolated forms, in which the κ is evidently a later accretion, but not preserved in its purity, viz. ἀλύξω by the side of ἀλύσκω and ἀλύω (cp. p. 194). A very conceivable aorist *ἤλυκον or a present *ἀλύκω is alike unknown: it is only in sigmatic forms that the guttural comes out. It is difficult to determine whether the κ of the iteratives and of the inchoatives undoubtedly akin to them (cp. p. 187) which is always preceded by σ, is connected with the κ here discussed.

2) *Nominal* formations.

In all kindred languages nouns, which are derived immediately from roots or verbal stems by means of the suffix *ka*, are rare. Greek forms of the kind are found in σω-κό-ς, γλαυ-κό-ς, θή-κη (cp. Skt. *dhā-ka-s* receptacle) : Latin ones like *prae-fi-ca* (mourning woman, from rt. *fa, fari*), *medi-cu-s* are discussed by Corssen Aussprache ii.[2] 306 ff.: a few others are quoted by Schleicher Comp.[3] 461, with the Ch.-Sl. *plŭ-kŭ* nation from the same root as *po-pul-u-s* and πολ-ύ-ς, πλῆ-θ-ος.

3) Cognate verbal forms in other languages.

Verbal forms of the nature of this perfect evidently belong to the
209 youth of the various languages. It is possible indeed, as has been attempted here, to point the patterns of these forms, inherited from a still earlier period, which are as it were their starting-points, but we can hardly trace any adequate reason for the fact that out of many stem-formations this particular one became the more common in this place and for this especial purpose: we can at most detect certain points of connexion in the usage of a suffix. In the case of the thematic aorists we discovered the tendency to a stem-formation with τ, which developed in the Keltic languages, and perhaps also in Oscan into a definitely marked preterite. We cannot be surprised then if within the circle of the more familiar and more thoroughly investigated Indo-Germanic languages we find no perfect with a *k*. There is however a trace of this in Oscan, though unfortunately only in the one word λιοκακειτ=Lat. *(col)locavit*, on the inscription from Anzi (no. xxxv. in Enderis). Cp. Corssen Ztschr. xviii. 210. Corssen, on the ground of the complete isolation of such perfects on Italian soil, formerly would not admit that the κ of this form had anything whatever in common with that of the Greek perfect. But after discovering, as he thought, a considerable number of Etruscan perfects (3 sing.) in *-ce* e.g. *tur-ce* said to be=τε-τόρευκε, *lupu-ce*, which according to him would correspond to a γέγλυφε (in form pretty nearly *γεγλύφευκε), *te-ce* answering in the same way to

τέ-θει-κε, he altered his view (Die Sprache der Etrusker i. 754), separating the Greek perfect from the Italian—without sufficient reason, as we saw on p. 392—because of the vocalism, but explaining the *k* as something common to both. As the Italian character of Etruscan does not seem to me to be made out, in spite of Corssen's admirable carefulness in working at the remains of the language, and as the interpretation of individual points is still far from certain,[2] I mention these Etruscan forms only with reserve.

An enumeration of all the perfects in κα would have hardly any meaning in face of the later wide extension of this form. I content myself 210
therefore with quoting the Homeric forms and making a few brief remarks upon the occurrence of this formation elsewhere. In the Iliad and the Odyssey we find the following 20 perfects with κ:

ἀδηκότες Κ 98, ἀδηκότας μ 281.
βέβηκας Ο 90, ἀμφιβέβηκεν Ζ 355, plupf. βεβήκει Α 221 etc.
βεβίηκε Κ 145, Π 22.
βεβλήκοι Θ 270, plupf. βεβλήκει Δ 108 etc.
βεβρωκώς Χ 94.
δεδάηκε θ 134, δεδαηκότες β 61.
δεδειπνήκει ρ 359.
δέδῡκε Ε 811 etc.
δείδοικα Α 555 etc.
ὑπ-εμνήμυκε Χ 491.
ἕστηκας Ε 485, ἕστηκε Γ 231 etc., ἑστήκει Δ 329 etc.
κέκμηκας Ζ 262.
μέμβλωκε ρ 190, παρμέμβλωκε Δ 11.
μέμυκεν (from μύω) Ω 420.
πεφύκῃ Δ 483, πεφύκασι cp. above p. 385 πεφύκει Δ 109 etc.
τεθαρσήκασι Ι 420, 687.
τέθνηκε Σ 12 etc.
τέτληκας Α 228, τέτληκε τ 347.
τετυχηκώς Ρ 748.
παρ-ῴχωκε (Aristarch., M.SS. παρῴχηκε cp. La Roche) Κ 252. The dubious συν-οχωκότε Β 218 was discussed above p. 369.

Vowel stems of every kind have produced perfects in κ in such abundance in the post-Homeric time that it is completely superfluous to quote particular instances. Very many might be adduced even from Herodotus, the earlier tragedians and Thucydides. We may say indeed that the Attic writers could form a perfect in κα from any vowel stem.

From consonantal stems on the other hand the most numerous perfects in the Attic writers belong to present forms in -ζω, like γεγύμνακα, ἥρπακα, ἠτίμακα, ἐγκεκωμίακα, ἐξήτακα, τεθαύμακα, κεκώμακα, ὠνόμακα, ἐσπούδακα, πέφρακα (from φράζω Isocr.),—εἴθικα, τεθέσπικα, ἐψήφικα, ἠρέθικα, κεκόμικα, 211
νενόμικα, ὠνείδικα, πεπόρικα, πεφρόντικα, ὕβρικα,—πέπαικα, all good Attic. γεγυμνάκασιν, προυτεθεσπίκει occur as early as Aeschylus (Prom. 586, 211), κεκομικώς in Herodotus (ix. 115). Most of the examples are furnished by Plato, Xenophon, and especially the Orators. Rott in the Ztschr. f. Alterth. 1853 p. 183 has justly observed that the suppression of the consonant of the stem in the future and sigmatic aorist favoured the

[2] Cuno in his Etruscan Studies (Fleckeisen's Jahrb. 1874 p. 313) translates *turce* by *dedicat*. Elia Lattes (Memorie dell' Instituto Lombardo Vol. xi.) takes *turce* as a proper name *Turcius*.

formation of such perfects. For if in earlier times forms like δεδείπνηκα by δειπνήσω and ἐδείπνησα, λέλυκα by λύσω, ἔλυσα were in use, it was natural to form a ἤρπακα for ἁρπάσω, ἥρπασα. It was just as easy for πέπεικα (Orators) to be added to πείσω, ἔπεισα. The instances formed from other stems in the Attic period are not very numerous. κέ-κρῐ-κα and τέ-τᾰ-κα are hardly to be regarded as consonantal, seeing that the stem without ν was in use also in κρῐ-τή-ς, κρί-σι-ς, τα-τό-ς, τά-σι-ς. πέφαγκα is quoted several times from Dinarchus. It is only from Aristotle onwards and in later comic writers that these forms with a carefully preserved nasal like ἀπέκταγκα became more common. From stems in ρ ἦρκα, εἶρκα (διειρκότες Xen.), σέσυρκα, ἔφθαρκα are the only ones which are good Attic, of those in λ: ἤγγελκα, ἔσταλκα. We can plainly perceive here the gradual extension of the formation.

Our statement of the case hitherto has made the perfect with κ appear as à pre-eminently Attic form. But it would be an incorrect notion not to consider this formation as existing in the other dialects Intimations to this effect have already been given as regards Ionic. We may further quote as Doric εὐράκοιμεν with a noteworthy α in the Cretan inscription edited by Bergman Berl. 1860 l. 71, κέκρικαν from the inscription of the Amphictyones l. 58, and the Cretan ἀπέσταλκαν (C. I. no. 3058 l. 4), both already mentioned for their termination on p. 385, and also the Heraclean infinitives (cp. p. 390) πεφυτευκῆμεν, πρωγγυευκῆμεν. Common forms like βέβακα, δέδωκα etc. need no quotations. Wescher publishes in the Bulletin de l'école d'Athènes no. 6 an inscription from Mantinea with the strange form ἀνάκεικε=ἀνατέθεικε (l. 26). ἄκουκα is recorded Anecd. Oxon. iv. 188, 14 as Dorian, and also ἀφέωκα perf. of ἀφίημι (Suid. s. v., Herodian ii. 236, 2). As here the stem ἑ, not unlike the Attic
212 πέπτωκα, πτῶσις, πτῶμα and the forms ἑάλων, ἑάλωκα, has passed into the derived ο-conjugation, so has the stem ἐθ in ἐθώκατι· εἰώθασι Hesych. where the termination shows that the word is Doric. The Lesbian form for this is εὐέθωκεν· εἴωθεν, along with εὐάλωκεν=ἑάλωκεν (Herodian ii. 640, 10) with the Lesbian ν for ϝ and the disappearance of this spirant at the beginning. An odd formation presents itself in the Pindaric infinitive γεγάκειν=γεγονέναι Ol. vi. 49, which is related to γεγάμεν Ol. ix. 110 much as δεδοικέναι to the Homeric δειδίμεν. The strange κέκοκεν· ἔγνωκεν I have attempted to explain in Stud. vii. 392 as the perfect to the aor. ἔκομεν· εἶδομεν This too does not look quite Attic.

Among the Attic forms two, viz. εἶκα and τέθεικα, show a surprising diphthong. Vowel stems have elsewhere regularly the long vowel before κ; some instead of this a short vowel like λέλῠκα; some fluctuate, like δέ-δε-κα and δέ-δη-κα. We must treat these relations of the vowels collectively in a subsequent chapter, for the same phenomenon reappears in various other tense-stems. The diphthong is in any case unusual. As regards εἶκα, which occurs frequently from Sophocles onwards along with the middle εἶμαι, the ει is here justified by reduplication. We saw above p. 364 that εἶκα probably came from *ϳε-ϳε-κα*. It is therefore formed like δέ-δε-κα; and even if we should be wrong in the etymology of the word, in any case a spirant has dropped out between the two ε's, and these afterwards coalesced into ει. The diphthong is therefore here completely intelligible. It is otherwise with τέθεικα.[3] It is noteworthy

[3] According to Herodian ii. 837 the form arose τροπῇ Βοιωτικῇ ὥσπερ ἥρωες εἵρωες.

that we have preserved to us at least one trace of the more regular τέθε-κα : ἀνατεθέκαντι Ross. Inscr. I. no. 81, l. 10; but τέθεικα and the middle τεθεῖσθαι are current in the Attic writers from Euripides onwards. It cannot be denied that the earlier η has in many cases given place to ει in later Attic: βασιλεῖς for βασιλῆς, ᾖδειν for ᾔδη, λύει as 2 sing. mid. for λύῃ. But it required some other attraction, I think, to cause this one perfect to separate itself from the many hundreds of perfects in -ηκα. For in fact analogies which break through the ordinary 213
rule are like heavenly bodies which by their proximity divert the course of others. Are we to suppose that εἶκα was here the disturbing force? If we remember that the extremely common verbs ἵημι and τίθημι constitute a pair of twins, which resemble each other on almost every point —just consider forms like ἵει ἐτίθει, οἵμην θοίμην, ἧκα ἔθηκα, ἥσω θήσω, ἐθῆναι τεθῆναι—this explanation does not seem to me improbable. And I cannot suggest any other. The fact that η and ει never differed very much in the pronunciation of the Attic dialect has of course also to be taken into account.

Finally some forms have still to be discussed in which peculiarities of the strong perfect pass over into the formation of the form with κ. We noticed above p. 397 that the conditions of the vowel in the older perfect e.g. in δέδοικα are not absolutely unknown to the perfect with κ. In view of the preference of this tense for the ο, the above-mentioned ω of πέπτωκα, and similar perfects by the side of πεπτηώς might even find its reason in the analogy of the strong forms. It is therefore natural to explain thus the ο of the surprising form ἐδήδο-κα. This is quoted from Aristophanes, Xenophon and Aeschines. It has a precursor in Homer. In χ 56 we have in our M.SS ὅσσα τοι ἐκπέποται καὶ ἐδήδοται ἐν μεγάροισιν, which has generally been adopted. But from Et. M. p. 316, 35 it appears that Aristarchus read ἐδήδαται, Herodian ἐδῄδεται. The plural would be strange by the side of ἐκπέποται. On the other hand ἐδήδεται is a quite regular formation from the expanded stem ἐδε, which is related to the Attic ἐδήδε-σ-ται as ὀμώμοται is to ὀμώμοσται, and it is highly probable that ἐδήδεται stood originally in the text, because the change from ε to ο is unknown to the perfect middle. The active to ἐδήδεται might have been *ἐδήδεκα (cf. ἐμήμεκα). But here the very same ο made its way in, which we meet also in the form without κ discussed on p. 403, ἐδήδοϝα (C. I. Gr. no. 15). The *ἐδήδοα which we must assume is related to ἐδήδοκα as ἀκήκοα is to the Doric ἄκουκα (Ahrens Dor. 337). —We have further the strangest of all perfect forms ἀγήοχα, a tolerably late formation, which occurs first in the spurious letter of Philip Demosth. 214
xviii. 39, then in Aristot. Oec. 2, 2, and more frequently in Polybius and later prose-writers, in the place of the regular ἦχα (cp. p. 406) for which there is plenty of evidence from the best Attic period. Important assistance is given for the explanation of it by the Dorian συν-αγάγοχα in the inscription from Thera C. I. Gr. no. 2448, i. 28, ii. 10, iii. 13 [Cauer Delect. p. 77 ff.] along with the ἀγήγοχε of an inscription from Sigeum (Buttmann Lexil. i. 297). The Doric ἀγ-άγ-ο-χα shows unmistakeably three elements, the Attic reduplication, the vowel ο, the termination χα. The reduplication presents no difficulty; the vowel ο is evidently of the same nature as in ἐδήδοκα, and hence the χ cannot be based upon the aspiration of the rt. ἀγ, for in that case it would be, so to speak, retriplicated instead of reduplicated (ἀγ-ᾱγ-οχ for ἀγ-ᾱγ-αχ).

Evidently the χ is only a phonetic transformation of the κ. Or in other words: ἀγ-άγο-χα belongs to the perfect in -κα; it is for *ἀγ-αγο-κα, which would be formed exactly like ἐδ-ήδο-κα. But the κ has become χ by a phonetic affection. This view is confirmed by the form ἱερίτευχε in the inscription from Mantinea published by Wescher Bulletin de l'école d'Athènes no. 6, l. 6, to which we may also add βεβλητχυῖα (C. I. Gr. 2360 l. 7; cp. Stud. vii. 393) though this rests on somewhat doubtful authority. As the two latter forms admit of no other explanation whatever, this remains probable also for ἀγήγοχα. In the later ἀγήοχα (Boeot. ἀγείοχα according to Et. M. 9, 34) there is one more irregularity, the suppression of the γ, of which this is probably the only instance in the Attic dialect. The Boeotians offer the parallel ἰών or ἴων=ἐγώ, the Tarentines ὀλίος=ὀλίγος (cp. Princ. ii. 247). I have given further reasons for believing that reduplicated forms hold a place of their own in regard to phonetic laws in my essay 'Ueber die Tragweite der Lautgesetze' Berichte der Sächs. Ges. d. Wiss. 1870 p. 16 ff. Here two gutturals were felt to be enough.

III. THE MIDDLE PERFECT.

Compared with the active perfect, the perfect of the middle is a simple verbal form. A single very archaic method of formation has
215 been carried out here quite independently, and as we saw on p. 354, in contrast to the active. We could only quote a few instances in the active where the perfect stem is immediately united to the personal endings; in the middle this formation has become an inviolable rule. Forms like δέδο-ται, λελυ-νται, πέπυσ-ται βέβακ-ται τέτυξαι νένιπται are the most primitive which could be expected from such stems. They are quite parallel to Vedic forms like *da-dhi-dhvē*=τέ-θε-σθε, *ri-rik-shē*=λέ-λειπ-σαι, *bu-bhuǵ-mahē* (from *bhuǵ* enjoy, cp. Homer. πεφυγμένος). Perhaps the reason why the Greek language retained to all time in the middle perfect the primitive method of formation, which in the present and aorist occurs only to a very limited extent, and often only as an archaic rarity (e.g. ἧσται, δέκτο, ἄλσο), is to be sought in the fact that the stem strengthened by the syllable of reduplication gave as it were more hold, and had volume enough to remain recognisable in spite of many mutilations of the final letter, unavoidable where consonants were brought into contact. For this very reason the middle perfect is quite specially the place for consonantal changes which are based upon assimilation. The faithful preservation of the personal endings gave to the stem of the middle perfect a mobility which is elsewhere unknown in the Greek verb, without any loss of clearness. While the active perfect, as we have seen, developed in different directions only during the course of the history of the Greek language, the middle is already in full use in the time of Homer, and remains essentially unchanged for all times, with the exception of the third person plural, which by degrees dies out in the case of consonantal stems.

The traces of a thematic treatment of the perfect stem are extremely scanty in the middle. α as forming a stem occurs, with the exception of ἀρηράμενος, to be mentioned immediately, probably only in the quite isolated forms ἐκγεγάασθε Epig. Hom. 16, 3, ἐκγεγάαντο (οἳ πὰρ θεοῦ

ἐκγεγάαντο) Anth. P. xv. 40, 20,[4] and in the strange σεσύανται· ὡρμήκασι in Hesychius, which evidently belongs to σεύω, ἔσσυμαι. We must here include the *α* in the stem, and treat *ντο*, *νται* as the personal endings. For *-ανται* as a personal termination by the side of *-αται* is quite unknown.— One might detect a trace of *ε* in the forms ἀκ-ηχε-μένη Ε 364, ἀκ-ηχέ-μεναι Σ 29; but ἀκηχέδαται, to be discussed hereafter, and the cognate forms ἀκαχήμενος, ἀκαχῆσθαι show that the vowel is in a different position. With more justice ἀρηρε-μένος may be quoted here, but it occurs only in Apollon. Rhod. iii. 833 and Quint. Smyrn. ii. 265, iii. 632, has in its place ἀρηραμένος, both evidently isolated ventures of learned poets. Another completely isolated form is δεδάασθαι which occurs once *π* 316 as the middle infinitive to the active δέδαα. Nor can we deny a vocalic expansion of the stem in ἐδήδοται discussed on p. 415, while the Herodotean ἀν-έω-νται (ii. 165=ἀνεῖνται) with the Heraclean ἀνέῶσθαι, and the ἀφέωμαι quoted by Herodian (Meister Stud. iv. 433) may be grouped with the vocalic expansions mentioned there, which are perhaps limited to the perfect only by chance [cp. p. 273 note, and for the N. T. ἀφέωνται Moulton's Winer[2] p. 96 f.].—Some few forms show traces of the thematic vowel: thus μέμβλε-ται T 363, with its past μέμβλε-το Φ 516. We shall probably best take these forms as originating by metathesis in με-μελ-ται, με-μελ-το. Buttmann Ausf. Gr. ii.[2] 243 regards the *ε* here as the short vowel of μεμέλητο quoted from Theocritus, and certainly the *ε* was originally attached to the root, but Lobeck adduces from Oppian Halieut. iv. 77 the form μέμβλονται, so that here the thematic nature of the vowel is unmistakeable.—The *ε* of the Homeric ὀρώρεται, only occurring twice (*τ* 377, 524), is undeniably thematic: it is indirectly confirmed by the conjunctive ὀρώρηται N 271. (Cp. Buttmann Ausf. Gr. ii.[2] 56.)—We may further recognise an indubitable transition into the thematic conjugation in ἀναγεγράφονται in Archimedes (Ahr. Dor. 333), supposing the form, by the side of which the isolated ἀναγεγράφαται is also recorded, deserves our confidence.—The same process may be seen, carried out extensively, in οἴχομαι, if this verb with its perfect signification is to be justly regarded as a petrified perfect of εἴκω (rt. *ϝικ*), Princ. ii. 115. 216

With regard to the personal terminations we must notice the careful preservation of the suffix for the 1 and 3 pers. sing. as compared with the mutilated *ē* of the Sanskrit, which is used for both. The endings *-σαι* and *-σο* too of the 2 sing. are carefully preserved in the perfect stem, as everywhere in forms of primitive stamp, a fact established already on p. 59 f.; hence ἀλάλησαι *ο* 10, δεδάκρυσαι Π 7, imper. ἀλάλησο *γ* 313, plupf. πέπνυσο *ψ* 210, κεχόλωσο Π 585. There are exceptions in μέμνηαι Φ 442, by the side of μέμνησαι Ψ 648, βέβληαι Ε 284, Λ 380, Ν 251 and ἔσσυο Π 585, *ι* 447, the latter form (cp. p. 130) perhaps to be taken as an aorist. As the only traces of a contraction show themselves in Homer in μέμνῃ Ο 18, Υ 188, Φ 396, *ω* 115 and in Herodotus in the imper. μέμνεο (δέσποτα, μέμνεο τῶν Ἀθηναίων v. 105), Lobeck's view (on Buttmann ii.[2] 244) is very probable, that here we must assume with Herodian a present form μέμνομαι, which is parallel with μέμβλεται and connected 217

[4] The thematic perfect ἐκγεγάονται used as a future (Hymn. in Ven. 197) is too strange not to be doubted. There seems to me much probability in Baumeister's conjecture

καὶ παῖδες παίδεσσι διαμπερὲς ἐκγεγάοντες.

with the proper names Μέμνων, Ἀγαμέμνων.—The loss of the σ in the press of consonants in the case of forms like πεφύλαχθε, λέλειφθε, ἀνήφθω hardly needs further mention.

The endings -αται and -ατο for the 3 plur. have already been thoroughly discussed on p. 64 f., so we need not return to them here. There are only two kinds of formations which deserve to be mentioned, those with δ before the α, and those which are aspirated. The δ presents no difficulty in ἐρηρέδαται (Ψ 284, 329) and is probably the consonant of the root also in ἐρράδατ' M 431 (Princ. ii. 293); on the other hand in the Herodotean ἀγωνίδαται ix. 26, ἐσκευάδαται iv. 58, ἐσκευάδατο vii. 62, παρεσκευάδατο v. 65 etc. κεχωρίδαται i. 140, 151, ii. 91 it must undoubtedly be the same dental element, which is present e.g. in κομιδή and occurs in the present in -ζω as a component part of the double consonant ζ. On this I based the combination discussed on p. 242, according to which the δ in the Homeric ἀκηχέδατ' (P 637), ἐληλέδατ' (η 86) is to be taken in the same way, and therefore bears witness to a formation which would end in -έζω in the present, while ἀκηχεμένος goes back to the same derived stem, though in this case it does not show this δ. We should have to notice also ἀπεσπάδαντο· ἀπέστησαν Hesych. if the gloss had to be read ἀπεσπάδατο. But the alphabetical order does not agree with this, so that the tradition must be regarded as quite uncertain.—

218 Attention was called on p. 405, where we were treating of the active aspirated perfect, to the aspiration which appears in a number of such perfect forms before the α. The forms of the perfect and pluperfect which belong here are as follows:

δειδέχαται η 72, δειδέχατ(ο) Δ 4 (cp. I 671, X 435); plur. to δείδεκτ(ο) I 224 with the present δειδίσκομαι (rt. δικ, δεικ).

εἰλίχατο Herod. vii. 90 from ἑλίσσω.

ἔρχαται κ 283, ἐέρχατο κ 241, ἕρχατο ξ 73 from εἴργω.

ἐσεσάχατο Herod. vii. 62 from σάττω.

ἀναμεμίχαται Herod. i. 146.

ὀρωρέχαται Π 834, ὀρωρέχατο Λ 26.

τετάχαται Thuc. iii. 13, Xen. Anab. iv. 8, 5 (ἀντιτετάχαται), ἐτετάχατο Herod. vi. 113, Thuc. v. 6, vii. 4. The evidence of the inscription from Methone was mentioned above p. 66.

τετράφαται (ἐπι) B 25, Theogn. 42, Plat. Rep. vii. 533, τετράφαθ' (plupf.) K 189.

τετρίφαται Herod. ii. 93.

If we put these nine examples along with the other instances of the employment of the endings -αται, -ατο, it results that only the following sounds appear before them:

1) a vowel: βεβλήαται,

2) a liquid: ἀγηγέραθ' (plupf.), ἑστάλατο Hes. Sc. 288, ἐφθάραται.

3) δ: ἐσκευάδατο etc.

4) the aspirates χ and φ, which in γεγράφαται, κεκρύφαται Hes. Opp. 386, τετεύχαται N 22, ἐπώχατο (only M 340), which following Buttmann Ausf. Gr. ii.[2] 189 we derive from ἐπέχω, belong to the root, in all other cases have arisen from the corresponding hard or soft non-aspirated explosive.

The only exception probably is ἀπίκατο Herod. viii. 6, for which we should have expected *ἀπίχατο. We may mention as a remarkable instance of a form in -νται faithfully preserved (cp. πέπανται) the Doric ἀποκέκλαγται, as Ahrens (Dor. 346) justly restores the words in Epicharmus, from κλάω=Att. κλῄω, κλείω.

As to the vocalism of the stem-syllable, the middle perfect here 219
deviates not inconsiderably from the active. The intensification of *α* to *η* is here by no means firmly established. By the side of the Attic forms *δεδηγμένος*, *πέπληγμαι*, *εἴλημμαι*, *λελῆσθαι* (Soph. El. 342) we find the Herodotean *διαλελαμμένος* (iii. 117), the Homeric *λέλασται* (E 834). Over against the active *πέφηνα* are *πέφασμαι*, *πέφανται*. How little the middle perfect is disinclined to the *ă* of the root is shown by *βέβαμμαι*, *βέβλαπται*, *γέγραμμαι*, *κέκασσαι* (*τ* 82), *μέμακται*, *πέπαλται*, *ἕστακται* etc.— The intensification of *ι* to *οι*, though characteristic of the active perfect, is unknown in the middle. Instead of this we have sometimes the *ει* which is common in the present stem: *δέδειγμαι* (from Sophocles onwards), for which Herodotus has *δέδεγμαι* (*ἀπεδέδεκτο* iii. 88), *ἠρήρειστο* (Δ 136), *ἐρηρεισμένος* (Herod. iv. 152) beside *ἠρισμένος* (Hesych.), *λέλειπται* from Homer onwards (N 256), *πέπεισμαι* from Aeschylus onwards, while to the active *ἔοικα* corresponds the middle *προσήϊξαι* (Eurip. Alc. 1063), *ἤικτο* *δ* 796 and *ἔικτο* Ψ 107, to the active *οἶδα* the middle *ἴδμαι· γινώσκω*, *οἶδα* Hesych. In *τετεύχαται* (N 22) *υ* becomes *ευ*, but it remains unraised in *τέτυξαι* (Π 622), *τέτυκται*, *τέτυκτο*, *τετύχθαι*, *τετυγμένος*. From *ζεύγνυμι* in spite of *ζυγόν*, *ἐζύγην* we find only *ἐζευγμένος*, and form like *ἔζευκται*, *ἐζεῦχθαι*, *ἔζευκτο* in Herodotus and Attic writers; on the other hand in spite of *πεύθομαι* and *πεύσομαι* there are only *πέπυσμαι* from Homer onwards (λ 505), *πέπυστο* N 521, and in the same way in spite of *φεύγω*, *πέφευγα* there is *πεφυγμένος* (Z 488).—We find no trace of the change of *ε* into *ο*, of which there are such numerous instances in the active, with the exception of *ἐδήδοται* mentioned on p. 415, but probably wrongly recorded;[5] there is one certain instance of *ω* answering to an *ε* in *ἄωρτο* (Γ 272). The regular *ἠερμένος* is quoted first from Apollon. Rhod. ii. 171. But here undoubtedly the *ο* is connected with the *ϝ* which was once found before the *ε* (Princ. i. 442, cp. Fick[3] 216). We mentioned the entirely unique reading in M 340 *πᾶσαι* (*πύλαι*) *γὰρ ἐπώχατο* on p. 418. Buttmann to support his derivation compares *ὄκωχα*.

On the other hand we find in the middle perfect a preference for the vowel *α* answering to *ε* in the present, to which we detected only slight tendencies in the active. This preference is however limited to 220
the vowel preceding a liquid or a nasal. While in forms like *βέβλεπται*, *κέκλεπται*, *πεπεμμένος*, *πέπλεκται*, *ἐσκεμμένος* the *ε* of the present stem appears also in the perfect, it becomes *α* in *δεδαρμένος* Herod. vii. 70, Aristoph., *δεδάρθαι* (Solon fr. 33, 7 Be.[3]), *εἵμαρται* from Homer onwards (*εἵμαρτο* Φ 281), *ἔσπαρται* in Herodotus and Attic writers, *ἐστάλατο* (Hesiod Sc. 288), *ἔσταλμαι* from Herodotus onwards, *ἔστραμμαι* first in Hymn. in Merc. 411, then in Herodotus and Attic writers, *ἔφθαρμαι* from Aeschylus onwards, *ἐφθάρατο* quoted above from Herodotus, *πεπαρμένος* first in Λ 633, *ἐτέταλτο* B 643, *ἐπιτέταλται* and the like from Sophocles onwards, *τέταται* with loss of the *ν* preserved in *πέφανται*, from Homer onwards (λ 19), *τέθραμμαι* from Euripides onwards, *τέτραμμαι* from Homer onwards (*τετραμμένος* P 227). The *α* in many of these verbs extends to the verbal adjectives and passive aorists, in some also to the active aorist, the preference of which for *α* was mentioned on p. 278, in several to the perfect with *κ*: *ἔφθαρκα*, *τέτακα*.

[5] Cobet Mnemos. Nova series ii. 368 also holds that *ἐδήδεται* is the right reading.

Finally we have still to discuss the changes which are brought about by the contact of the consonants with each other. The changes, based upon general phonetic laws, before the terminations beginning with τ and θ (σθ), such as occur in λέλεκται, πέπυσται, γέγραπται, τετράφθω (M 273), ἀφῖχθαι need no discussion.[6] With regard to the 2 sing. we may mention that the oldest form arising from assimilation is represented in Homer by κέκασσαι τ 82 and πέπυσσαι λ 494. For the latter Plato Protag. 310 has πέπυσαι as a result of the frequent reduction of a double σ to a single one. Somewhat more difficulty is presented by the terminations beginning with μ. Complete consistency prevails only so far, that every labial is assimilated to the μ, thus even in Homer in κεκαλυμμένος Π 360 etc., λελειμμένος ι 448, τετραμμένος Ρ 227 etc. On the other hand a dental explosive remains in κεκορυθμένος Γ 18 etc. and in Pindar's κεκαδμένος (Ol. i. 27) by the side of the Homeric κεκασμένος Δ 339,
221 κεκάσμεθα ω 509, κεκασμένος δ 725. The κεκορυθμένος is contrasted especially sharply with the equally Homeric λελασμέθα Λ 313 and πέπυσμαι λ 505, to which are subsequently added πέπεισμαι, ἔωσμαι. We cannot talk of a phonetic law requiring the change into σ in the face of Homeric forms like ὀδμή, οἶδμα, ἐφετμή, στάθμη, σταθμός, ἀριθμός, γναθμός. The process is rather to be explained thus: the sibilant, which is more convenient before the μ, and which made its way also in the Att. ὀσμή and in the New Ion. ῥυσμός=ῥυθμός, by degrees became the rule with dental stems in the common verbal forms, which are especially impatient of any harshness, while on the other hand the unique κεκορυθμένος maintained its ground only as an archaism under the protection of Epic formulae.—The treatment of the gutturals is to be regarded in the same way. There are many instances from noun-formation of the older method of treatment according to which the hard explosive κ or χ is retained before μ, as ἀκμή, αἰχμή, δοχμή, πλοχμός, αὐχμός, νεοχμός. Among verbal forms we find only ἀκαχμένος from the rt. ἀκ M 444, K 135, which as a 'petrified' participle takes a position of its own. Elsewhere without exception every guttural is represented by γ, whether the stem has γ, as in ἐζευγμένος Σ 276, or κ as in δεδηγμένος, δέδειγμαι, κεκήρυγμαι, πεφυλαγμένος (Ψ 343), or χ as in ἦργμαι, ἀφῖγμαι, δεδεγμένος (Δ 107), τετάραγμαι, δεδραγμένος N 393, τετυγμένος (Π 225). Hence μεμορυχμένα can hardly be the correct reading in ν 435; we ought rather to write μεμορυγμένα with Apollonius in his Lexicon. The 'sonant' sound of the γ, as our physiologists call it, was more akin to the nasal, and hence became the general representative of the gutturals, as σ did of the dentals. The tendency of language is here always towards a simple rule for verbal formation. The only point left open to variation was the treatment of a ν before μ and before σ. A number of stems from Homer onwards without any variation form their middle perfect from a stem without ν: κέκριμαι, κέκλιται, τεταμένος. In the case of others assimilation appears even in Homer; thus in ἴσχυμμένος Σ 180, and in the same way we find in Attic orators παρώξυμμαι (Aesch. c. Timarch. § 43, but by no means on good authority), but from Solon onwards (fr. 13, 71) in Sophocles
222 (O. C. 1122) and Plato we read πεφασμένος; from Thucydides onwards there is evidence for μεμίασμαι, in Herodotus (ii. 39) we have σεσημασμένος, in Plat. (Rep. x. 607, Parmen. 145) ἡδυσμένος, πεπερασμένος, (Leg. vii. 807)

[6] κέκευται· κέκρυπται Hesych., if correctly recorded, is quite unique.

πεπιασμένος. It would be hard to quote any other example of the change of ν into σ. Perhaps the analogy of the numerous forms in -σμαι, especially from verbs with -ζω in the present, contributed to produce it. There were only four classes of perfects in common use for these forms with μ, those with vowels or diphthongs; τετίμημαι, πεπίστευμαι; those with γ: κεκήρυγμαι; those with μ: κεκρυμμένος; and those with σ: κεκόμισμαι, παρεσκευασμένος. The last formation attracted to itself, as it appears, μεμίασμαι and others, while in the post-Attic period the analogy of the vowel-ending prevailed here and there: τετραχυμένος (Galen), but μμ also reappears: μεμίαμμαι (Cramer Anecd. Oxon. iv. 197). Hence a definite rule never prevailed: for the variations of the post-Attic writers it will be sufficient here to refer to Lobeck on Phryn. p. 34 sq.—Examples of the 2 sing. of such verbs are extremely rare, if they exist at all. I have not been able to discover πέφανσαι and the like, which our grammars give. Even Buttmann (Ausf. Gr. i.[2] 442) says 'but it was generally avoided by periphrasis.'—We have an entirely unique form in the Homeric εἶμαι from ἔννυμι (τ 72, ψ 115) with the participle εἰμένος (εἰμένοι Δ 432, εἰμένος Ο 308, ἐπιειμένοι Η 164, καταειμένον ν 351) to which we actually have the 3 sing. εἶται λ 191 (v. l. ἧσται, εἵσται), the latter a very surprising form by the side of the plupf. ἕστο Ψ 67, ἕεστο Μ 464. As σ is elsewhere a very favourite sound before the terminations of the perfect, we have to look for some special reason for the loss of it. Probably this is to be found in the preceding diphthong, which is to be explained by reduplication, so that from *ϝε-ϝεσμαι first there came *ϝεισμαι, as from *ϝεϝεπον ϝεῖπον, and then the σ dropped out, as in ἧμαι, ἥμεθα. Even the εἷμα which came from ϝέσμα, ϝέμμα may have helped. The 3 plur. εἵατ(ο) Σ 596 is easily explained from *εἰσ-ατο. But the analogy of ἧσται, ἧστο requires for the 3 sing. εἶσται, the traces of which have also, as we saw, been preserved.

As we shall discuss the quantity of the stems ending in a vowel, and the apparent insertion of a σ, later on in a wider connexion, we have now only to add a word on a few passages where it looks as though the 3 pl. from consonantal stems, which could only be formed with some 223
difficulty, were replaced by the 3 sing. In Pindar Pyth. ix. 32 we read: φόβῳ δ' οὐ κεχείμανται φρένες (Schol. ἐχειμάσθησαν). It is very easy here with Tycho Mommsen to read οὐκ ἐχείμανθεν, though others find here the so-called schema Pindaricum. Gottfr. Hermann on Aesch. Pers. 569 [574 Dind.] is inclined to regard the employment of a form in -νται from stems in ν with the force of a plural as legitimate, on the ground that νται could easily have come from -ν-νται, e.g. κέκρανται from κεκραν-νται. But in reality we could only expect -αται in the case of consonantal stems. In Eur. Hipp. 1255 the more recent editors write with Elmsley in the place of the συμφοραὶ of the M.SS.

αἰαῖ, κέκρανται συμφορὰ νέων κακῶν.

On the other hand no one tampers with Bacch. 1350

αἰαῖ, δέδοκται, πρέσβυ, τλήμονες φυγαί,

though it has probably never occurred to any one to regard δέδοκται as a form which has arisen by phonetic change from *δεδοκ-νται. There is here a figure of syntax. Hence we can hardly agree with Ahrens (Dor. p. 333) in taking ἀναγέγραπται as a plural in a passage of Archimedes (p. 244).

IV. MOODS OF THE PERFECT.

'The conjunctive and optative of the perfect occur altogether but seldom, the imperative of the perf. act. hardly occurs at all' said Buttmann Ausf. Gr. i.^{2} 417. For the frequency of their occurrence and the replacement of the forms by periphrasis in Attic prose La Roche furnishes welcome collections in the Zeitschrift f. d. österr. Gymnasien Sept. 1874 p. 411 ff, 1876 p. 593 ff (cp. v. Bamberg Ztschr. f. Gymn. 1877 Ber. p. 10).

The primitively formed imperatives of the active like *ἴσθι, ἄνωχθι, τεθνάτω* have been quoted above p. 384. There is a remarkable loss of the ending in *τέτλα· ὑπόμεινον* Hesych. by the side of the Homeric *τέτλαθι*. But this really almost exhausts the stock of such forms. An imperative
224 of the active perfect in the second person is as a rule possible only where the force is that of a present, as in *γέγωνε* (Aesch. Prom. 193, Soph. Phil. 238, Eur. Or. 1220), *κεκράγετε* Aristoph. Vesp. 415, *κεχήνετε* Ar. Ach. 133. In the last two forms we should notice the *ε* which has come in upon the analogy of the present, and which reappears also in the few instances of the 3 sing.: *μεμαθηκέτω* quoted by Krüger from Stobaeus ('4 p. 318 Leipzig'?), and *ἐπανατεταλκέτω* Arist. Meteor. iii. 5 p. 376 b 29. Ahrens (Dor. 330) quotes as Doric: *κέκλυκε* Epicharm. Anecd. Oxon. iv. 339, where *εὕρηκε* is also mentioned, *γεγονέτω, ἀνεστακέτω, παρειπεπτωκέτω* from Archimedes. [Jelf § 195 Obs. 1 gives *βεβηκέτω, ἑοικέτω* from Lucian.]

Of conjunctives it is only that from the present-like *οἶδα* which is at all common. The only genuine conjunctive forms of primitive formation with a short mood-vowel are *εἴδομεν* A 363, Π 19, *γ* 18, *εἴδετε* Θ 18, Σ 53, *ι* 17 and *πεποίθομεν κ* 335. The usual conjunctives for *οἶδα* are formed from the *e*-stem by adding the thematic vowel lengthened as for a conjunctive: *εἰδέω Ξ* 235 (I. Bekker can hardly be right in giving *ἰδέω*) *εἰδῶ* (A 515 etc.). The corresponding contracted forms, also occurring in Homer (*εἰδῇς* Θ 420, *εἰδῇ* O 207, *εἰδῶσι β* 112) are in later times the only forms in use. In all other verbs the usual final vowel of the perfect stem is lengthened in the conjunctive, like the thematic vowel, as in the Homeric forms *ἀρήρῃ ε* 361, *προβεβήκῃ* Π 54, *βεβρύχῃ* P 264, *ἐρρίγῃσι* Γ 353, *ἑστήκῃ χ* 469, *μεμήλῃ* A 353, *ὀλώλῃ* Δ 164, *ὀρώρῃ* I 610, *πεποίθω ω* 329, *πεποίθῃς ν* 344, *πεφύκῃ* Δ 483 (but *ἐμπεφύῃ* Theogn. 396) and in post-Homeric forms like *γεγόνῃ* Theogn. 300, *δεδίῃ* Xen., *εἰλήφωσι* Plat. Polit. 269, *ἐοίκω* Xen., *οἴκῃ* Herod. iv. 180, *ἑστῶμεν* Plat., *ἑστῶσι* Eurip. Demosth., *ἑστήκῃ* P 435, Herod., Attic, *κεκλάγγω* Ar. Vesp. 929, *κεκλόφωσι* Equ. 1149, *λελήθῃ* Theogn. 121, *πεπλήγῃ* Ar. Av. 1350, *τεθνήκωσι* Thuc. viii. 74, *ὠφλήκῃ* Ar. Av. 1457, *πεφυτεύκωντι* Tab. Heracl. i. 122, 125 etc.

In the optatives we may notice a threefold distinction. A small number of them, following the inflexion of the perfect stem elsewhere, have throughout primitive forms: *ἑστα-ίη-ν* Homeric (*ἀφεσταίη ψ* 101, 169), *τεθναιην* Σ 98, also in Theognis 343 and in Xenophon, *τετλαίη* I 373. With these we may place the common *εἰδείην*, inasmuch as the stem *εἰδε*
225 is treated quite after the rule for verbs in MI, and *δεδιείη* Plato Phaedr. 251. The second method of formation was probably developed from the last-named, the stem-forming *ε* passing into the thematic *o*, as in *ἰοίην* (discussed on p. 333) by the side of *ἰείην*. So we may explain

πεποιθοίη Arist. Ach. 940, ἐδηδοκοίη or, as Meineke Com. ii. 179 conjectures, ἐδηδοκόη (cp. ποέω) in Cratinus, ἐκπεφευγοίην Soph. O. R. 840, προεληλυθοίης Xen. Cyr. ii. 4, 17, and πεπαγοίην in Eupolis mentioned above p. 336.—The third method of formation, according to which the stem-vowel of the perfect is treated just like the thematic vowel of the present, is the most common, and probably occurs even in Homer βεβλήκοι I. Bekker and La Roche after Aristarchus Θ 270 (v. l. βεβλήκει), πεφεύγοι a doubtful reading in Φ 609 (I. Bekker πεφεύγει). In Δ 35 βεβρώθοις is well established. Post-Homeric examples are furnished by ἐσβεβλήκοιεν Thuc. ii. 48, βεβρώκοι Herod. i. 119, περιεληλύθοι Herod. iii. 140, ἐοίκοι Plat., εὑρήκοι Herod. i. 44, εὑράκοιμεν on the Cretan inscription published by Bergmann l. 71, ἐγκεχηρήκοι i.e. ἐγκεχειρήκοι inscription of Tegea v. 12 (Gelbke Stud. ii 39), καθεστήκοι Plat. Legg. 759, ἡλώκοι Herod. i. 83, ὀφλήκοι Lys. xxiii. 3, πεποιήκοι Thuc. viii. 108, πεπόνθοι Plat. Parm. 140.

The mood-formation of the middle is still less commonly employed. For the 2 sing. of the imperative I find only ἀλάλησο γ 313, δέδεξο E 228, Υ 377, X 340, μέμνησο common in comic writers (Meineke Com. v. p. 635), πέπρησο Pherecr. Mein. Com. ii. 287, πεφύλαξο Hesiod Opp. 797, oracle in Herod. vii. 148.—The 3 sing. is more common, because in this the true perfect force can be brought out. As examples we may take the only three which are Homeric, ἀνήφθω μ 51, 162, τετύχθω β 356, φ 231, τετράφθω M 273, and also πεπειράσθω Ar. Vesp. 1129, νενεμήσθω, μεθείσθω both in Plat. Soph. 267, σεσάχθω Antiph. Meineke's Com. iii. 130, γεγράφθω, δεδέσθω, δεδόσθω, δεδόχθω quoted from Plato, δεδιδάχθω from Xenophon.—Among the conjunctive forms the most remarkable is προσαρήρεται Hesiod Opp. 431, as being the only instance of the insertion of the short mood-vowel in the middle-perfect. The reading however is not quite certain. We may compare also the forms of the same verb quoted on p. 417. We also mentioned there ὀρώρηται N 271, which is related 226
to an indic. *ὀρώρεται precisely as πεπλήγῃ is to πέπληγε. Other forms of the kind seem to occur only from a few vowel-stems where the meaning is that of a present. μεμνεώμεθα (Stein writes μεμνώμεθα) Herod. vii. 47 (beside μεμνώμεθα ξ 168) and the accent of forms like μεμνῆται Isocr. xviii. 40, κεκτῆται Plat. Theaet. 200 c, κεκτῆσθε Isocr. iii. 49, point to contraction, either of the long stem-vowel with the short mood-vowel which might be expected; *με-μνη-ό-μεθα, or with the same vowel lengthened as in the thematic present: *μεμνη-ώ-μεθα. The two Doric forms of the kind, quoted by Ahrens Dor. 333, deserve notice: Tab. Heracl. i. 137 ὅσσα κα ἐν αὐτᾷ τᾷ γᾷ οἰκοδομῆται, and in the Theraean inscription C. I. Gr. 2448 vii. 12 according to the very probable reading of Ahrens: ὅσα κα μὴ ὦν πεπράται. Perhaps we may argue from these two forms, to replace which an Attic writer had to resort to periphrasis, to a wider extension of the mood-formation of the perfect among the Dorians.—Optatives are only possible from vowel-stems. μεμνῄμην Ω 745 and λελῦτο σ 238 with the variant λελῦντο (δὲ γυῖα ἑκάστου), δεδῆσθε· δεδεμένοι εἶητε Hesych. are formed by the immediate addition of the mood-element. There is good evidence for the following Attic forms of this kind: μεμνῆτο Aristoph. Plut. 991, Plat. Rep. vii. 518, κεκτῆτο Plat. Legg. v. 731, κεκλῆο Soph. Phil. 119 Dind., διαβεβλῆσθε Andoc. ii. 24 (Bekker). Here and there forms crop up like μεμνῷο (Xen. Anab. i. 7, 5, v. l. μεμνῆο), μεμνέφτο Ψ 361 (Bekk.

μεμνῆτο), *μεμνῶτο* Xen. Cyrop. i. 6, 3. Cobet Novae Lect. p. 223 ff. recognises only formations of the former kind. As Lobeck Path. i. 426 rightly perceived, *μεμνῶο* could only be explained by a transition into the analogy of the present form **μεμνη-ο-ιο*. But the rarity of such forms makes them suspicious.

V. VERBAL NOUNS OF THE PERFECT.

The infinitive of the active perfect has already been treated by us on various occasions, especially on pp. 341, 345, 390 ff. Hence it is sufficient here to illustrate by examples the chief kinds of formation:

227 ### 1) Perfect infinitives in *-μεναι*.

ἑστάμεναι K 480, *τετλάμεναι* *ν* 307, *τεθνάμεναι* Ω 225, *ἴδμεναι* *μ* 154.

2) in *-μεν*.

a) primitive.

βεβάμεν P 359, *ἐκγεγάμεν* E 248, *δειδίμεν* *ι* 274, *ἴδμεν* Λ 719.

b) with a preceding stem-forming *e*.

Heracl. *πεφυτευκῆμεν* (p. 390), *ἀντιπεπονθέμεν* in Archimedes, *γεγωνέμεν* Θ 223, *ἀνωγέμεν* N 56.

3) in *-ναι* (post-Homeric).

a) primitive.

βεβάναι Eurip. Heracl. 610, *ἀποβεβάναι* Herod. v. 86, *ἑστάναι*, *τεθνάναι* from Herodotus onwards (i. 17, 31) in common use.

b) with a preceding stem-forming *e*.

δεδιέ-ναι from Thucydides onwards, *δεδοικέ-ναι* Eurip. Suppl. 548, *εἰδέναι* from Herodotus and Aeschylus onwards, *ἐοικέναι* and *εἰκέναι* Attic, *ἠλωκέναι* Herod. i. 70.

4) in *-ειν* (*ην*).

by the addition of the ending usual in the thematic present; *γεγάκειν* Pind. Ol. vi. 49, *δεδύκειν* Theocr. i. 102, *κεχλάδειν* Pind. fr. 57 Be.[3] cp. above p. 391, *ἐπιτεθεωρήκην* inscr. of Cyme C. I. no. 3640 l. 19. Cp. p. 391.

The middle infinitive with its invariable ending *-σθαι* after vowels (Homer. *ἀλαλῆσθαι*, *κεκλῆσθαι*, *κατειρύσθαι*, *πεπνῦσθαι*, *κεχολῶσθαι*), and *-θαι* after consonants (Homer. *ἀφῖχθαι*, *δεδιδάχθαι*, *πεπύσθαι*, *λελεῖφθαι*) presents no peculiarities.

On the other hand the active participle requires a short discussion. While the participial ending, in the case of all tense-stems with active inflexions, is elsewhere represented by a suffix *-ant* or *-nt*, the perfect stem alone has its special suffix *-ot* fem. *-υια*. The connexion of these two forms can hardly be understood from Greek alone. But here the

Sanskrit *-vat* with the by-forms *-vāns*, *us* and the feminine *-ushī* at once supplied the explanation. As this suffix also is limited to the perfect, and as in Zend too as well as in Church-Slavonic it reappears in the same application, we can determine with certainty the special formation of the perfect participle in the Indo-Germanic period, and thus may regard its consistent carrying out in Greek as a special archaism. In 228
Sanskrit the nom. sing. of the masculine ends in *-vān*, that of the neuter in *vat*. Thus

da-dṛç-vấn	corresponds to the Greek			δε-δορκ-ώς
ta-sthi-vấn	„	„	„	ἑ-στα-ώς
ba-bhū-vấn	„	„	„	πε-φυ-ώς
vid-vấn	„	„	„	εἰδ-ώς

and still more exactly in the vowel of the stem the Sanskrit and Zend fem. *vid-ushī* answers to the Greek ἰδ-υῖα.

Even in the accentuation of the suffix Sanskrit and Greek are alike. In Church-Slavonic also the suffix *-vŭ* is preserved with the same function, e.g. *da-vŭ*=δεδωκώς; for the variations here produced by the addition of an expanding suffix we may refer to Schleicher's Compendium[3] 390 f. Latin has perhaps preserved two relics of this form, though the words are used as substantives: *papā-ver* and *cadā-ver*. The former seems to go back to a rt. *pap*, shoot, grow up, swell, which occurs in *pap-ula* blister and *pamp-inu-s* (cp. Fick[3] 137): 'swollen' is, I think, a suitable name for the luxuriantly growing poppy.[7] Cp. Brugman Stud. vii. 322. *Cadā-ver* would be formed from rt. *cad* by a stem-forming *ā*, like κεκαφηώς from the stem καφε. The 'fallen' would certainly well suit the meaning.

The perfect participle is extremely common even in Homer, far more common than all the other forms of the active perfect. There is nothing surprising in the loss of the ϝ in the Greek masculine and neuter after consonants, e.g. in ἐοργώς, μεμηκώς, εἰδώς. In the numerous Homeric forms in which the stem-vowel remains unimpaired before the suffix, the remembrance of a spirant once present has been retained: βεβαώς, δεδαώς, μεμαώς, τεθνηώς, τετληότος, πεπτηώς, τετιηώς, βεβαρηότι, κεκοτηώς, κεχαρηότι. The later contracted forms, of which ἑστώς alone remained in common use, while the others like βεβώς, γεγώς, πεπτώς, were confined to the language of poetry, correspond to the natural change of form. For ἑστώς the intermediate form ἑστεώς occurs in Herod. ii. 151. 229
On the other hand the ϝ survives to a certain extent in the feminine. For it is only by the help of the primitive form *vas-ia* that *νσ-ια and with the regular loss of the σ ν-ια are intelligible. Sanskrit in its *ush-ī* shows the same reduction of *va* to *u*. The preference of the feminine for the short stem-vowel (ἀρᾰρυῖα, μεμακυῖα) was treated on p. 365; the Doric -εια, i.e. -ε-ϝια on p. 392. The Doric form presupposes according to our view the existence of an ending already shortened to *-νια*, a presupposition quite justified by the fact that from Homer onwards no fuller form than this occurs. The form *-νια* is not altogether unknown even to the Dorians; cp. καθεστακνῖαν Cretan inscription, published by Naber Mnemos. i. p. 79, l. 14, 68. The stock of the extant participles in *-νια* is supplemented by forms without reduplication which have become sub-

[7] This view now seems to me more probable, than that which I gave in Princ. i. 358 [omitted in Grundz.[5] p. 287, but cp. p. 511], though it differs but little, so far as the meaning goes.

stantives, like *αἴθυια*, *ἄγυια*, *ὄργυια*, *Ἅρπυια*, *Εἰλείθυια* (by-form *Ἐλήθεια*), *Ὠρείθυια*: these are discussed by Wörner in the 'Sprachw. Abhandlungen,' p. 111 ff.

The form of the nom. sing. masc. of these participles is not wholly free from difficulties. From the stem *ϝειδοτ* we cannot get to *ϝειδώς*. For compensatory lengthening never results from the rejection of an explosive sound. Hence I have already Stud. ii. 171 endeavoured to establish the probability that *ϝειδώς* goes back to the stem *ϝειδος* (Skt. *vidvas*), so that in Greek there are at least some traces of the variety of stems in these participles, which in Sanskrit is much greater. The feminine at any rate can only be reached from the *s*-stem.

A further irregularity is found in the variation of quantity in the Homeric participles. Instead of the prevalent suffix *-οτ* we find in the following 9 instances the lengthened form *-ωτ*: *βεβαῶτα* ε 130, *γεγαῶτα* I 456, δ 144 (plur. B 866), *κεκμηῶτι* Z 261, *κεκληγῶτες* Π 430 ('*ἐν τῇ ἑτέρᾳ τῶν Ἀριστάρχου*,' v. l. *κεκλήγοντες*), P 756, *μεμαῶτε* E 569, *μεμαῶτος* Θ 118, *μεμαῶτες* B 473, *ὑποπεπτηῶτες* B 312, *τεθνηῶτα* Z 464, Π 858, *τεθνηῶτι* κ 494, *τεθνηώτων* Π 16, *τετριγῶτας* B 314, *πεφυῶτας* ε 477. Two of these stems show short by-forms *μεμαώς* (*μεμᾶότε* N 197, *μεμᾶότες* B 230 818) and *τεθνηώς* (*τεθνηότος* P 435, acc. s. P 402, plur. ψ 84). After what Brugman Stud. iv. 173 f. has said upon this case and others like it, it seems to me most probable that we must regard the digamma as the source of the varying quantity. We recognized similar phenomena in the case of the augment on p. 81.

The analogy of the present, which we have often met in the perfect, did not spare the participles either. Doric, Aeolic and isolated Homeric cases of the kind were put together above p. 393 ff. Formations like *βεβῶσα*, *ἑστῶσα* were also discussed there.

The three quite anomalous forms *πεφυζότες*, *μεμυζότε*, *λελειχμότες* were treated of on p. 408.

The middle participle, of all perfect forms in Homer, and perhaps throughout all Greek literature, the most common, is formed with the greatest regularity. As in the infinitive the main accent invariably falls on the penultimate. Accentuation of the termination as opposed to the stem prevails indeed also in the participle and in the infinitive of the active, in the former case in agreement with Sanskrit. The middle perfect participles have among the Indians—thus differing from Greek—the termination *-āná*, so that in the case of the middle participle there is no longer complete agreement between the two languages. A few Greek forms, in the opinion of some grammarians, made an exception with regard to the accent, being accentuated on the antepenultimate, in this case ranking as Aeolic. These are *ἀλαλήμενος*, *ἀκαχήμενος* and *ἀκηχέμενος* (Σ 29), *ἀρηρέμενος* Apollon. Rhod. iii. 833, *ἐληλάμενος*, *ἐσσύμενος*. Herodian appears to have wavered in his judgment of these forms, for in i. 471 he approves *ἀκαχημένος*, in ii. 142 *ἀκαχήμενος*. Lobeck on Buttm. Ausf. Gr. ii.[2] 43 discusses all the instances, laying especial stress on the meaning, and on the ground of this justly defending the usual accentuation, especially for *ἐληλαμένος*. Certainly *μεμνημένος*, *δεδεγμένος*, *κεχρημένος* and other participles have no more of the force of a perfect than those forms, and yet they follow the general rule. Complete regularity then does not prevail here. A place of their own must be assigned to forms like *ἀλιτήμενος* δ 807, *ὀνήμενος* β 33. These are

naturally forms with the force of a present, of the Aeolic type. Starting from these some grammarians held that the accentuation of the present was justified even in the case of several genuine perfect forms.

VI. TENDENCIES TOWARDS SIGMATIC PERFECT-FORMS. 231

It is only now that we have traced the forms of the perfect through the active and the middle, that we can touch upon a number of formations which are characterized by the sibilant σ in a manner completely different from the rule for perfect formation. The question concerns the following forms:

1) The two third persons plural of the active: ἴσᾱσι, which is in use from Homer (Z 151) onwards, and εἴξασι, which is quoted several times from Euripides (Hel. 497, I. A. 848), Aristophanes (Nub. 341, 343, Av. 383) and other comedians, and besides only two or three times from Plato (Soph. 230).

2) γεγραψάται, the corresponding middle form, only in Tab. Heracl. i. 121 ὅσσα ἐν τᾷ συνθήκᾳ γεγραψάται.

3) μεμισθωσώνται ib. 106: τὰν γᾶν, ἃν κα αὐτοὶ μεμισθωσώνται, ἢ ἀρτύσωντι ἢ ἀποδώνται τὰν ἐπικαρπίαν.

4) The inflexion of ἴσᾱμι, carried out throughout among the Dorians, which I have treated more fully Stud. i. 1, 240 ff. The recorded forms are

ἴσᾱμι Epich. fr. 98 Ahr. Pind. Pyth. iv. 247, Theocr. v. 119.
ἴσαις or ἴσᾳς Theocr. xiv. 34.
ἴσᾱτι C. I. no. 5773, Theocr. xv. 146.
ἴσᾰμεν Pind. Nem. vii. 14.
ἴσᾰτε Periander ap. Diog. Laert. i. 99.
ἴσαντι Epich. fr. 26, Theocr. xv. 64.

There is also 3 pl. conj. ἰσᾱ́ντι or ἴσαντι C. I. Gr. 5013 (ὅπα ὦν ἰσᾱ́ντι=ἵνα εἰδῶσι, Chishull ἰσῶντι).—Inf. ἰσάμεναι according to Hesych. γισάμεναι· εἰδέναι, partic. ἴσας Apollon. de adv. 587, 8, dat. ἴσαντι Pind. Pyth. iii. 29.

The σ, united generally with the vowel α, reminds us at once of two kinds of formations, on the one hand of the 3 pers. pl. in -σαν, like ἔ-δο-σαν, ἔ-φα-σαν (cp. pp. 48, 50). This analogy comes out still more plainly in the Homeric plupf. ἴσαν, the past of ἴσασι. But on the other hand the syllable -σα suggests the sigmatic aorist. After the views expressed on pp. 11, 12 as to compounded tense-formation, I have no doubt that we have an instance of this here. These forms have the especial interest, that they reveal the connexion of the Latin with the Greek perfect. 232 The Latin perfect makes use of composition in three ways, viz. first, in all perfects to form the 3 plur.; secondly, to form the conjunctive; thirdly to form the whole perfect-stem. ἴσασι i.e. *ϝιδ-σαντι* and εἴξασι are the analogies for the first application. *ϝιδ-σαντι* differs from *vidē-runt* i.e. *vidē-sunt* only inasmuch as the Greek stem preserves its primitive form, while the Latin has become disyllabic. The relation is just the same between *viderint* and the Heraclean μεμισθω-σώνται, while the Latin perfect in *-sī*, e.g. *lū-si* and the corresponding Old Irish, e.g. *gabsi* cepit, *gén-sa-m* fecimus resemble the completely sigmatic ἴσᾱμι. We shall return to ἴσᾱμι under the sigmatic aorist; in this word, as the force is completely that of a present, it may be doubted whether it was ever

characterised by initial reduplication. In any case we have in dealing with these words to take into account the forms which Delbrück describes (Altind. Verb. p. 181) as 'double stems.'

VII. THE PLUPERFECT.

The pluperfect, as the past tense of the perfect, seemed, until recently, to be a tense limited to Greek and Latin, in the possession of which these two languages had the advantage even over Sanskrit with all its wealth of forms. W. von Humboldt had indeed, as I pointed out in my 'Tempora und Modi' p. xiii and 230, recognised that Sanskrit was not entirely destitute of forms of a similar stamp, which lay concealed among the reduplicated aorists. But it was in Grassmann's Lexicon to the Rigveda and in Delbrück's Old-Indian Verb p. 122 that an Indian pluperfect was for the first time definitely recognised. Still it is only among the Greeks and Romans that this tense has a wider extension, and thereby receives its definite place in the system of the verb. The past tense from the perfect stem has three kinds of general distinctive marks: the augment as a sign of the past tense, the reduplication as a sign of the perfect stem, and finally the secondary personal endings, which are the only ones possible for any augmented tense. Of these
233 three distinctive marks the augment is in the pluperfect the most moveable. We cannot be surprised to find that so light an initial syllable did not cling very firmly to forms which had already so much to carry, and in which the past-force remained for the most part recognisable even without this syllable. Hence from Homer onwards we find in the most different kinds of literature pluperfect forms without any augment, like *ἀποτέθνασαν*, as La Roche writes *μ* 393 with most M.SS., *ἀμφιβεβήκει* Θ 68, *τέτυξο* Θ 163, *πεπτώκεσαν* Thuc. i. 89, *πεπόνθειμεν* Plato Phaedr. 89, *ἀποπεφεύγη* Plato Apol. 36 a, *διαβεβήκει* Xen. Anab. vii. 3, 20, *πεπόνθεσαν* Dem. xviii. 213, *ὀπώπεσαν* Herod. vii. 125. It will suffice here to refer to the most recent investigation of this question by La Roche in the Ztschr. f. d. österr. Gymn. 1874, p. 408 ff. We may just mention *εἰστήκειν* (cp. above p. 86) which occurs first in Hesiod (Scut. 269), and then often in Attic poets (Ar. Av. 513) and prose writers (Thuc. i. 89), without the short forms *ἕστατον*, *ἑστάτην*, *ἕστασαν* ever having the augment, and everywhere constantly interchanged with the unaugmented forms. Three methods of formation are in use: viz. first, the primitive, in which we have *only* the distinctive marks mentioned above; secondly, the thematic, in which the perfect stem is expanded by an added vowel; thirdly the compound, in which we may clearly recognize the appended stem of the verb substantive. In the middle the first formation alone prevails: in the active the first and second are represented only within a very narrow compass, while the third has become the rule.

A) Active Pluperfect.

1) Primitive Formation.

All the forms belonging here, like *ἐπέπιθμεν*, *ἐΐκτην*, *ἦσμεν*, *ἴσαν*, have already been quoted on p. 385 ff. along with those of the primitive perfect, so that we have no need to say anything more about them.

2) Thematic Formation.

Here belong, as the clearest representatives of the kind, the two Epic past tenses (3 plur.) *ἐμέμηκον* ι 439 with the participle *μεμηκώς* and *ἐπέφυκον* Hes. Theog. 152, Opp. 149, Scut. 76. The case is the same with *ἄνωγον* ι 331, *ἄνωγε* ε 276, inasmuch as we have repeatedly learnt 234
to recognise *ἄνωγα* as a perfect. But here the perfect too is sometimes inflected like a present (*ἀνώγει*). The analogy of the imperfect is in these pluperfects just as unmistakeable as that of the present in many perfect forms quoted above. Such pluperfects correspond exactly to Sanskrit formations like e.g. *a-kaḱaksha-m* with the perfect *kaḱaksha* (rt. *ḱaksh* see). As in Sanskrit the border line between these formations and reduplicated aorists is doubtful, so with the Greek *πέπληγον* we cannot determine whether it is the pluperfect to *πέπληγα* or an aorist. The form was discussed more thoroughly on p. 290.

But there are also some past tenses of the like kind which occur only in the third person singular. As with these there is no difference between the ordinary perfect and the past perfect, we cannot talk here of a transition into the analogy of the present. The distinction between perfect and pluperfect consists here exclusively in the augment. But as the latter may always be omitted in Epic poetry, to which all these forms belong, the two coincide in form, and it is only the connexion which decides. Here belong

ἀν-ήνοθε-ν Λ 266 *ὄφρα οἱ αἷμ' ἔτι θερμὸν ἀν. ἐξ ὠτειλῆς*
ἐπ-εν-ήνοθε Β 219 *ψεδνὴ δ' ἐπενήνοθε λάχνη*
δείδιε Σ 34 *δείδιε γὰρ μὴ λαιμὸν ἀπαμήσειε σιδήρῳ*
ἐγέγωνε Ξ 469
γέγωνε Ω 703 *κώκυσέν τ' ἄρ' ἔπειτα, γέγωνέ τε πᾶν κατὰ ἄστυ*

with the present-like *ὅσσον τε γέγωνε βοήσας* e.g. ζ 294. Cp. Buttmann Ausf. Gr. ii.[2] 35 f. It is plain that we have to deal here only with perfects which have the force of a present. One feels, with formations of this kind, how slight are the means which language employs for the most important distinctions, and can realize the dangers to which the system of verbal forms must have been exposed in languages which do not possess either the augment or the distinction between primary and secondary terminations. Perhaps the lack of perspicuity in the forms just discussed contributed to favour the extension of the third pluperfect formation.

3) Compound Formation. 235

The Ionic dialect from Homer onwards has preserved for us a pluperfect which is characterised by the addition of two vowels, pronounced separately, to the perfect stem. Fanatical friends of the theory of the 'connecting vowel' necessarily found this inconvenient, inasmuch as it looked as if language here, in its excessive luxuriance, employed two 'connecting vowels,' though one of these could not help being so completely in the way of the other, that it really turned into a 'hindering vowel.' We have here to do with forms like the following:

1 sing. *ᾔδεα* Ξ 71, *ᾔδε' ἐνὶ φρεσί* Θ 366, *ᾔδεα* Theogn. 853, Herod. ii. 150, Callimach. fr. 297 ed. O. Schneider.

ἠνώγεα ι 44, κ 263, ρ 55.
πεποίθεα δ 434, θ 181.
ἐτεθήπεα ζ 166.
ἐώθεα Herod. iv. 127 (the only example in Herodotus).

2 sing. *ἐτεθήπεας*, an old variant of *θηήσαο* ω 90, while Hesychius quotes *ἤδεες· ἤδεις*, with which compare Et. M. s. v. *ἐπεποιήκειν*, *ἐπεποιήκεα* (p. 386, 15 sqq.). The double ε savours strongly of grammatical theory.

3 sing. *ἤδεε* B 409, 832, Λ 330, P 402, in all which passages I. Bekker to suit his metrical theory writes *ἤδη*. From Herodotus Bredow p. 320, 26 quotes similar forms, e.g. *ἀραιρήκεε* iii. 39, *ἐγεγόνεε* i. 11 and often elsewhere, *ὀπώπεε* i. 68.

2 plur. *συνηδέατε* Herod. ix. 58, the only example of the kind for this person.

It is *a priori* probable that the two vowels did not originally stand side by side; and it was very natural to conjecture the loss of a *σ*, as I did in Tempora und Modi p. 333 following Pott, after Bopp Vergl. Gr. § 645 had proposed an explanation similar in principle, but somewhat more complicated in the carrying out. And as in the same Ionic dialect we meet in the imperfect of the rt. *ἐς* the forms *ἦα* or *ἔα*, *ἔας* (Herod.), *ἦε*, *ἔατε* (Herod.), it was not possible to avoid identifying the terminations of these pluperfects with the imperfect forms of the verb substantive, especially as

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Lat. *vīdera-m*	and	**ἐ-ϝείδεα*, *ἤδεα*
vīdera-s	and	**ἐ-ϝείδεας*
vīdera-t	and	**ἐ-ϝείδεε*, *ἤδεε*
vīdera-tis	and	**ἐ-ϝειδέατε*, *ἠδέατε*

agree exactly, except in quantity, and in Latin the connexion of the termination *-eram* with *eram* was still more evident. In spite of this there is still one difficulty remaining. It is a question whether the ε is a part of the appended auxiliary verb, or of the perfect stem ending in a vowel. Schleicher Comp.[3] 812 prefers the former view. It seems to me that the second deserves the preference, if only on the ground of the 3 plur. For here, on the analogy of *ἴ-σαν*, *ἔ-φα-σαν*, *ἔ-δο-σαν*, *ἴ-σαν* they knew=*ϝιδ-σαν*, we must certainly divide *ἤδε-σαν* so. Again we came across a perfect stem in ε in the infinitive *εἰδέ-ναι*, in the conjunctive and optative *εἰδε-ίη-ν*. Indeed we learned above on p. 390 ff. to recognise the perfect formation with an *e* sometimes short, sometimes long, as a Graeco-Latin form. The vocalism of *πεποίθεα* too suits only that of *πέποιθα* or *πεποιθέναι*, not that of *πέπισμεν*. Composition of a stem with forms of the rt. *ἐς* met us above p. 427 in the case of *ἴσαμι*; and we shall have occasion under the head of the sigmatic aorist to discuss this principle of formation in its various connexions. Evidently *ἠδέ-ατε* i.e. **ἐ-ϝειδε-σα-τε* is to *ἴσατε* i.e. **ϝιδ-σα-τε* precisely as a form **εἰδέ-μεν* (which is very conceivable, on the analogy of the Doric *πεπονθέ-μεν*) would be to the Hom. inf. *ἰδ-μεν*. The same element is in the one case added to an *e*-stem, in the other to the unexpanded root. The position of the 3 plur. is evidently quite special. The *-σαν* of *ἤδε-σαν*, *ἐ-πεπόνθε-σαν* never loses its *σ*. Obviously on the ground of *ἦσαν*, *ἔσαν* *-σαν* established itself in time as a termination of the third plural, and constantly extended itself more widely. Thus this

personal form took an isolated position, and whilst in early times, when for the 3 pl. only ἔδον, ἔφαν and the like were in use, ἐ-Fείδε-σα, ἐ-Fείδε-σα-ς, ἐ-Fείδε-σε etc. down to the 3 plur. ἐ-Fείδε-σα-ν were quite on the same footing, afterwards the σ in all the other forms fell before the universal tendency to transform it into a breathing, but in the one instance was protected by the analogy of the numerous forms belonging to other tense-forms, which had meanwhile become commonly current. We have repeatedly seen above, in the case of the 2 sing. of the middle, that 237
the σ between two vowels was not always treated in the same way. It is worth noticing that the language of Homer, though it has quite a number of primary forms of the 3 plur. like βέβασαν, ἐείδισαν, μέμασαν, ἴσαν, has only one single form from an *e*-stem ἐοίκε-σαν N 102.

Now that we have learnt to know the methods of forming the pluperfect in their clearly marked types, the question is to which of these categories that form belongs, which occurs even in Homer in considerable numbers, and afterwards came to be the only one in use. The forms here under consideration, which Cobet Novae Lectiones p. 212 ff. has submitted to an acute and comprehensive criticism are the following:

a) Forms in η.

1 sing.—in the Old Attic dialect the 1 sing. according to the evidence of the grammarians and the best M.SS. ended in η. One main authority for this is that of Choeroboscus in Lentz's Herodian ii. 326: οἱ δὲ Ἀθηναῖοι[8] τὸ ἰαλυθὲν ὑπὸ τῶν Ἰώνων συναιροῦσι καὶ ποιοῦσιν εἰς η ἐπεποιήκη λέγοντες ὅθεν καὶ τὸ 'ἑκεχήνη ἐγώ' παρ' Ἀριστοφάνει ἐν Ἀχαρνεῦσιν (v. 10)

ὅτε δὴ 'κεχήνη προσδοκῶν τὸν Αἰσχύλον.

The unhistoric conception of the old grammarians here meets us in all its strength, or rather in all its weakness. According to them -εα is an Ionic resolution of the usual -ειν, but then -εα itself is again contracted into -η. But we perceive a correct insight in the fact that this 1 sing. of the pluperfect is compared with the 1 sing ᾔη=ᾖν. We have the following instances in which first persons in η rest on good authority or are restored with certainty: Soph. O. R. 433, O. C. 944, Antig. 18, El. 1018, Eurip. Hippol. 405, Heracl. 987, Aristoph. Av. 511 ᾔδη, Aristoph. Eccl. 32 ἐγρηγόρη, 650 ἐπεπόνθη, Vesp. 800 ἠκηκόη, in Plato, whose usage is treated by Stallbaum on Sympos. p. 198 c, frequently ᾔδη, Apol. p. 31, ἀπωλώλη and ὠφελήκη, p. 36 ἀποπεφεύγη Theaet. 208 ἀφεστήκη, Sympos. l. c. ἐπεπόνθη, p. 217 ἐγκεχειρήκη, Republ. 472 ἐᾰσοίκη. Afterwards ειν alone is used.

2 sing. ἠείδης X 280 (Ven. A according to La Roche ἠείδεις), ᾔδης *a* 337 [Bekker: M.SS. οἶδας cp. Merry's note in loc.], ἐξῄδης Soph. 238
Trach. 988 (?) [Cobet ἐξῇδησθ'], ᾔδησθα τ 93, Cobet Soph. Antig. 447, Dind. Aristoph. Nub. 330; ἐλελήθης is given by Dindorf after Brunck at Aristoph. Equ. 822, 1044.

3 sing. ἠείδη ι 206, ᾔδη A 70, B 38 etc. La Roche, in spite of the authority of Aristarchus in favour of the η (Schol. on E 64) is inclined to write ει everywhere, and so too Cobet and Kontos in the Λόγιος Ἑρμῆς

[8] Cp. Moeris p. 197 ed. Bekker ᾔδη Ἀττικῶς, ᾔδειν Ἑλληνικῶς.

p. 61. Certainly the variation between *ει* and *η*, even in the same verse N 355 *πρότερος γεγόνει καὶ πλείονα ἤδη*, is surprising. The only form which is established with absolute certainty is the Doric *ἀπολώλη* tab. Heracl. i. 39. In Theocritus there is the greatest fluctuation in the M.SS. between *ει* and *η*; cp. Ziegler on x. 38, xiii. 40. In Attic writers there is nowhere any support for *η* in the 3 sing. (cp. Gerth Stud. i. 2, 222).

1 plur. *ἠΐδημεν* (probably to be written *ἠείδημεν*)· *ἠπιστάμεθα*, *ἤδειμεν* Hesych. *ἐκεκρατηρίχημες* Sophron fr. 71.

b) Forms with ε.

In three passages of the scenic poets editors now follow Elmsley (on Eurip. Bacch. 1345) in writing first or second persons of the pluperfect with a short vowel: viz.

Aristoph. Lysistr. 1098 *δεινά κα 'πεπόνθεμες*

Soph. O. R. 1232 *λείπει μὲν οὐδ' ἃ πρόσθεν ἤδεμεν τὸ μὴ οὐ*

Eur. Bacch. 1345 *ὄψ' ἐμάθεθ' ἡμᾶς, ὅτε δ' ἐχρῆν οὐκ ἤδετε.*

In the first passage it is a Lacedaemonian who is speaking; and this is the only reading which makes sense (M.SS. *πεπόνθαμες*). In the second there is no reason for altering the *ἤδειμεν* of the M.SS.: in the third though the recorded *εἴδετε* is also intelligible, the meaning is better with *ἤδετε*.—For the 3 plur. the forms in *ε-σαν* are, as has been said above, the only ones which are well supported. From Herodotus onwards forms like *ἐξεληλάκεσαν* Herod. v. 20, *ἐώθεσαν* (Herod.), *ἑωράκεσαν* (Thuc.), *ἀπήρκεσαν* (Demosth.) are universally in use. But from this ending *-εσαν*, as Ellendt. Lex. Soph. (ed. 2da) p. 515 justly notices, scholars have too quickly arrived at an *ε* in other persons, though the state of the case is quite different there. For Soph. O. R. 1232 cp. Wecklein Ars Soph. emend. 24.

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c) Forms with ει.

1 sing. The termination *-ειν*, which was universally used later on, is now banished from the text of the tragedians. In later comic writers and in prose from Xenophon onwards there is abundant evidence for *-ειν*. A list of such passages is given by Kontos in the *Λόγιος Ἑρμῆς* p. 44 ff.

2 sing. Here so far as the tradition goes we are entirely dependent on the copyists, to whom *-ης* and *-εις* sounded just alike. *-εις* is common in Attic orators from Antiphon onwards: Antiphon 5 § 15, Isaeus 3 § 41 etc.—*ἠρήρεισθα* Archil. fr. 94 Be.[3] is quite unique.

3 sing. The form in *-ει* is recorded more than 30 times in Homer, e.g. *ἠρήρει* M 56, *ἐβεβήκει* Λ 296, *δεδήει*, B 93. It continues to be the prevailing form. But we often have evidence that the reading of Aristarchus was that in *-ειν* e.g. Z 170 *δεῖξαι δ' ἠνώγειν ᾧ πενθερῷ*, though here the presence of the *ϝ* makes it impossible to speak of the *ν* as necessary: *ἠνώγειν, οὕτως σὺν τῷ ν Ἀρίσταρχος· ἠνώγεεν γάρ* (Did.). Zenodotus and Aristophanes also, according to the same authority, read in Ξ 412 *στῆθος βεβλήκειν ὑπὲρ ἄντυγος*. Hence there is not the slightest reason to attack this form, as La Roche Textkrit. 195 does, where we have authority for it, though we may well doubt whether Bekker was

right in introducing the *ν* at the end of the verse. The form in *ειν* is expressly asserted to be Attic in Bekker's Anecd. p. 422 *ἀπερρώγει καὶ σὺν τῷ ν ἀπερρώγειν τὸ τρίτον πρόσωπον*, and Cobet l. c. and Kontos in the Λόγιος Ἑρμῆς justly express themselves in favour of the adoption of this form in the Attic writers, in order to avoid the hiatus: thus, as earlier editors gave the line, in Ar. Nub. 1347

ὡς οὗτος, εἰ μή τῳ 'πεποίθειν, οὐκ ἂν ἦν οὕτως ἀκόλαστος

ἤκειν=ἐῴκει Av. 1298, *ἤδειν* Eurip. Ion 1187.

The plural and dual forms do not occur in great abundance, but present no controverted points: *ἤδειμεν* occurs in Aeschin. iii. 82, *ἤδειτε* Demosth. lv. 9. In the 3 plur. *-εισαν* was regarded as un-Attic. The form in *-ειν* for the 3 plur., three times used by Apollonius Rhod. ii. 65, iv. 1700 (*ἤδειν*), 947 *ἠρήρειν* is very peculiar. The learned Alexandrine gets into fine trouble for it with the Dutch critic (Novae Lectiones p. 467): 'Apollonius ipse turpiter impegit. Quid eo homine facias qui *ἤδειν* dixit pro sciebant'! Certainly Apollonius sometimes indulged in strange freaks, and perhaps this 3 plur. in *ειν* was only an erroneous 240
imitation of Homeric forms like *βάν*, *ἔφαν*, *μίγεν*, which even at the present day many regard as abbreviated from those in *-σαν*.

We come now to the question how the forms in *η*, *ε* and *ει* are related to those quoted above in *εα* and *εε*. That the *η* of the 1 sing. in the Attic writers is contracted from the Ionic *εα*, and that the *ει* of the 3 sing. is contracted from *εε*, was the prevalent opinion among the ancients, and is generally retained in modern times. This view meets with no difficulties in

1 sing. Ion. *-εα*	Att. *-η*
2 sing. Ion. *-εας* (?)	„ *-ης*, *-ησθα*
3 sing. Ion. *-εε(ν)*, *-ει(ν)*	„ *-ει(ν)*, Dor. *-η*
1 plur. Ion. *-εαμεν* (?)	„ *-ημεν*.

On the other hand this theory does not at once fit the 2 sing. in *-εις*, though on p. 430 we learnt to recognise the trace of an Ion. *εες*, and the 1 sing. in *-ειν*, or the plural and dual forms in *-ειμεν*, *-ειτε*, *-ειτον*, *-ειτην*. But as the *-ει* in several instances cannot be shown to exist till late Attic, it is a very probable hypothesis that this diphthong made its way only by degrees from the 3 sing., where it had a just claim to its place, and that thus we have an instance here of an analogy extending. The *ν* of the 1 sing. may be explained from the analogy of the imperfects and aorists. In the case of the *ει* this view gains in probability from the fact that in one form, viz. in the 3 plur., the extension of this diphthong, though a much later phenomenon, goes on as it were under our eyes; for here it is only in the post-Attic period that *ει* takes the place of *ε*. This theory is also favoured by the history of Greek vocalism. The less the distinction between the sound of *η* and *ει* demonstrably became in the course of time, the more easily could the latter intrude itself into the place of the former. In the declension of the stems in *-ευ* we have the same process. The Old Attic *ἱππῆς* is to the later *ἱππεῖς* precisely as *ἤδης* to *ἤδεις*; and the change of the termination *-η* in the 2 sing. mid. into *-ει* is also similar. Of verbal forms we may also compare the imperfect of *εἶμι*, *ἤειν* by the side of *ἤια*, *ἦα*, discussed on p. 121, especially in the clearest instance, the form of

241 the 3 sing. ἦειν by the side of ἦει. This ephelkystic ν forms an important link in the chain of the facts here coming into consideration. For as its place is only after short vowels, in forms of the 3 sing. like ἤδει(ν) there is still a reminiscence of the earlier form ἤδεε(ν).

There are however two kinds of forms which do not agree with the theory suggested. There is first the 3 sing. in -η elsewhere than in the Doric dialect. For a 3 sing. ἠείδη could only be explained in Homer as a contraction from ἠείδεα. But no 3 sing. in -εα is either recorded or credible. For everywhere a 3 sing. in ε answers to the 1 sing. in -α: γέγονα—γέγονε, ἦα—ἦε, ἔγραψα—ἔγραψε. But we saw how fluctuating are the authorities for this η, which Cobet altogether rejects. We have therefore an instance here in which the textual criticism which is directed only towards securing an uniform polish, and is averse from questions of origin, agrees very well with the efforts which we are pursuing.—The other formation is that with the short ε for the first two persons plural, mentioned on p. 432. πεπόνθεμες cannot have come from *πεπονθέαμες nor ἤδετε from ἠδέατε. But the support for these too was not very strong. If there had been more certain evidence for these two forms, we could hardly have helped regarding them as not compounded. As a matter of fact from the *e*-stem of the perfect we might arrive on the one side at a pluperfect with a long vowel η, on the other at one with the short vowel ε. πεπόνθεμες would then connect itself with the Doric infinitive πεπονθέμεν and the ordinary πεπονθέ-ναι, ἠείδη and ἤδη-σθα with the Aeolic ϝοίδη-μι, ϝοίδη-σθα and the Heraclean πεφυτευκῆμεν. If we remember that the 3 sing. plupf. ἀπολώλη actually occurs in the same Heraclean dialect, which presumably used *ὀλωλῆμεν for ὀλωλέναι, and that ἐκεκρατηρίχημες, quoted more than once above, belongs to the equally Doric dialect of Epicharmus, it would not be exceeding the bounds of probability to assume a half-obsolete simple pluperfect with an *e*, the stem of which differed as little from the perfect stem, as the primitive and that supplied with the vowel of the present. The 3 sing. in η, which Aristarchus decidedly upheld in Homer, would then be a relic of
242 this formation beyond the sphere of Dorism. Still, considering the rarity of the forms mentioned, and the uncertainty of the authority for several of them, I do not attach any weight to this hypothesis, but prefer myself to hold to the view that *all* active pluperfects, with the exception of those mentioned under 1) and 2) are compounded, and have originated from the Ionic forms by contraction; and that hence, not taking into account these exceptions, the whole active pluperfect of the Greeks, which was actually in use, is formed in the same way as the pluperfect indicative in Latin.

B) Middle Pluperfect.

As the whole perfect stem in the middle is treated quite differently from the active, so is it also in the pluperfect. The method of formation is throughout the primitive; and therefore, as all that has to be noticed in the terminations has been stated before, there is no need for us to occupy ourselves more in detail with this tense. We may just mention that even in Homer the middle pluperfect is very common, and is formed from the most various stems. The following will serve as examples: τετύγμην ξ 234, κεχόλωσο Π 585, ἐφῆπτο Ζ 241, δέδετο Ε 387, ἠρήρειστο Γ 358,

ἐλέλειπτο B 700, ἐπέπυστο N 674, βεβλήατο Ξ 28, ἐσφήκωντο P 52, τετάσθην Δ 536.

VIII. THE FUTURE FROM THE PERFECT STEM.

Whilst in respect of the formation of a pluperfect Sanskrit may be compared with Greek at least in virtue of certain tendencies towards such a formation, the notion of forming a future from the perfect stem —as even the most resolute enemies of all 'Graeco-Italic' must allow— is limited to Greek and Latin. Still even this formation is not carried out completely. The two languages here mutually supplement each other, Greek making but few attempts at an active future of completed action, but in the middle forming this tense tolerably extensively with a prevalently passive signification, while Latin on the other hand only carried out the active to completion, so that in the former the active, in the latter the passive can only be expressed by periphrasis.

λελυκὼς ἔσομαι = *solvero*
λελύσεται = *solutum erit*. 243

The future of the perfect stem presupposes absolutely the earlier formation of a future from the verbal stem. A πεπαύσομαι or κεκόψομαι is inconceivable without παύσομαι, κόψομαι. The terminations -σομαι, -σῃ, -σεται had long stamped themselves on the consciousness of the Greeks as belonging to the future, when the creative impulse of the language employed them also with the perfect stem. The *futurum exactum* is a strictly new formation, but the agreement of Greek and Latin makes it probable that the tendency to such a new formation belongs to the time in which Greeks and Italians were still united. But by the side of the agreement of the two languages in this formation there is also a significant difference. The Greek future perfect adds the future termination to the perfect stem in its primitive form, the Latin to the *e*-stem: *līque-ro* for **līque-so*, but λελείπ-σο-μαι, *tetige-ro*, but τετάκ-σο-μαι. The difference cannot surprise us, for under the perfect stem we saw different stem-forms interchange elsewhere. The Latin future formations are more nearly represented by forms like the Homer. κεκαδήσομαι (Θ 353) which agrees in its method of formation with *cecidĕ-ro*, πεφιδήσεται (O 215), which would correspond to a Latin *fe-fĭde-rit*, the conjectural basis of *fiderit*. But the Greek forms quoted do not attach themselves to perfects actually in use, and hence cannot be regarded as proper future perfects, but only as futures from stems reduplicated like the aorist.— The circumstance, at first sight surprising, that this future in Greek is only united with middle terminations, is connected with the fact to which our investigation has more than once conducted us, that the middle perfect forms, especially in the Homeric period, were far more widely current than the active. But a still more forcible reason is to be found in the fact that the future of the rt. *as* be, from which this compounded tense came, in Greek has middle, in Latin active personal endings. When the active perfect later on spread and multiplied, the language was doubtless lacking in the fresh creative impulse needed to develope futures from these new formations. Thus the perfect with κ 244 remained confined to some few future forms, which we shall notice immediately.

We begin with these relics of a Greek active futurum exactum. The

most remarkable instance of the kind is the Homeric *κεχαρήσω*, of which we find the infinitive at O 98 :

οὐδέ τι φημί
πᾶσιν ὁμῶς θυμὸν κεχαρησέμεν

thus in a definitively active meaning as compared with the passive ψ 266

οὐ μέν τοι θυμὸς κεχαρήσεται.

This is the only instance of a future perfect of a sharply differentiated active form side by side with the passive. The fact that the perfect stem here has an intensive present force cannot hinder us from taking the two forms so, any more than *μεμνήσομαι* by the side of *meminero*.—We have *δεδώσω* recorded on very dubious authority, viz. by Macrobius in the Excerpta Parisina (Grammatici Latini ed. Keil v. p. 610), where Homer's verse *ν* 358 *ἀτὰρ καὶ δῶρα διδώσομεν* is quoted with the reading *δεδώσομεν*. The words are : inveniuntur huius modi tempora figurata et ex verbis in *ω* exeuntibus, ut est *δεδοικήσω*, quod proprium Syracusanorum est, et *δεδώσω*, ut apud Dracontem . . . Buttmann Ausf. Gr. i.[2] 432 explains this as being the reading of the grammarian Draco of Stratonicea. In the passage quoted a future perfect is quite unsuitable. But perhaps we may still conjecture in this notice a trace of the real existence of such a form. *δεδώσω* would agree with *dedero* except as to quantity. On the other hand *ἑστήξω* and *τεθνήξω* are actually in use by the side of the later and in Cobet's judgment (Nov. Lect. 264) quite un-Attic middle forms *ἑστήξομαι*, *τεθνήξομαι*. Thus editors write in Eur. I. A. 675

εἶσει σύ, χερνίβων γὰρ ἑστήξεις πέλας

in place of the *ἑστήξῃ* of the M.SS., as in Ar. Lys. 634 we have *ὧδε δ' ἑστήξω*, Thuc. iii. 37 *καθεστήξει*, Ar. Acharn. 325 *ὡς τεθνήξων ἴσθι νυνί*, Plat. Gorg. 469 *τεθνήξει οὗτος*, Aesch. Ag. 1279 *τεθνήξομεν*. As a variant to *τεθνήξει* we find twice in Aristoph. *τεθνήσει* in the Ravenna cod., a form which we cannot regard as correctly recorded because of its strange-
245 ness : though when Cobet finds in it an 'immanis barbarismus,' it must be remarked that from the shorter stems in use in *ἔσταμεν*, *τέθναμεν* such a form might very well be formed upon analogy.

In the usual middle forms all is regular with the one exception of slight variations in quantity. By the side of *δέδεμαι*, *λέλῡμαι* we should expect *δεδέσομαι*, which has but slight authority, and *λελῡσόμαι*, but *δεδήσομαι* and *λελῡσόμαι* are in use, evidently under the influence of futures from the verbal stem, like *δήσω*, *λῡσομαι*. There are numerous forms with an initial consonant, as *δεδέξομαι* E 238, *κεκλήσῃ* Γ 138, *μεμνήσομαι* X 390, *πεφήσεαι* χ 217, *τετεύξεται* M 345, *κεχολώσεται* A 139, *λελείψεται* Ω 742, *μεμίξεται* Hes. Opp. 179, *γεγράψεται* Soph. Aristoph., *πεπλήξομαι* Herod., *ἐσκέψομαι* Plat., *ἐστερήσομαι* Eurip. I. A. 1203. With regard to stems with initial vowels (cp. Homer. *εἰρήσεται* Ψ 795) Cobet Nov. Lect. 241, following I. Bekker's precedent, has restored many forms of the kind for corrupt readings in Attic writers, as *ἀπηλλάξεσθε* Aristoph. Ach. 757, *ἠτιμώσεται* Dem., *ἠρήσεται* Plato Prot. 338, *ἀνεώξεται* Xen. Hellen. v. 1, 14. This future is as a rule but rarely formed from derived stems. Still we have *κεκινδυνεύσεται* Antiph. v. 75, *ἀποκεκινδυνεύσεται* Thuc. iii. 39, *διαπεπολεμησόμενον* Thuc. vii. 25. The moods and verbal nouns of the future are very rare ; in Homer there is only *μεμνήσεσθαι* : *τ* 581, *φ* 79.

CHAPTER XVII.

THE SIGMATIC AORIST.

The verbal forms hitherto discussed are quite sufficient, in the case of a verb proceeding directly from the root and characterising the present stem by expansions of the various classes, to express all elements of meaning developed at all in the Greek verb, with the one exception of the future : 246
and even in the case of this tense, as we shall see in the following chapter, there is no lack of attempts to express it with the aid of the means already mentioned. It might be objected that passivity in an action viewed as aoristic is only to be denoted by means of the more recent formations, with which we shall have to deal in Chap. XIX. But even here the older language is by no means destitute of a simple means. Homeric aorists like *βλήμενος*, *Ἄρηι κτάμενος* show that it was only by degrees that the middle aorist lost the capacity of expressing passive action. Hence it follows that all the verbal forms which we have still to discuss are strictly speaking superfluous, that is, are not called for by any one definite need for expression. A form like *ἔτρεψα* beside *ἔτραπον* is, so to speak, an *alter ego*, and in the same way *τρέψαι* is needless by the side of *τραπεῖν*. Such luxury of form-creation has hardly come before us hitherto. For the variety of the forms of the present stem, though resembling it, is not of the same kind. In the case of the present, we thought we could detect slight differences of meaning once existing for the plurality of forms. In the region with which we are now concerned there can hardly be any thought of that. At most we may compare the *i*-class of the present-stems with the sigmatic aorists, if we were right in explaining this from composition. In the introduction (p. 11) we put all the forms in question here together as the auxiliary stratum. There too the guiding thought was expressed that all the forms still to be discussed are related to those already discussed as a sentence with the copula is to one without it.

In order to establish our view more firmly it is necessary in the first place to take a survey of the forms distinguished by the letter *σ*. In Greek alone these forms, here limited as a rule to the aorist and future, form a very considerable group of verbal forms, which evidently had a mutual influence upon each other, and thereby in the course of time developed constantly more definite rules for their formation. *σ* thus became one of the most important formative sounds for the Greek verb, of all consonants it is heard the most frequently, and there are a number 247
of verbs, which besides the present stem have only developed the sigmatic stem. These forms appear in a somewhat different light, when we compare the cognate languages, and especially Sanskrit. The sibilant is here also richly represented, and we cannot doubt for a moment that it had its place even at the time of the Indo-Germanic unity in definite

positions. But the employment of it is less simple and regular than in Greek. The other languages fall quite into the background, but present some striking analogies.

The dental sibilant shows itself in very different applications, viz.

1) In isolated personal endings, as in the Greek *-σαν* (*ἔ-δο-σαν* by the side of *ἔ-δο-ν*) and in the perfect *εἴξασι* i.e. *εἰκ-σα-σι*, for which it will be enough to refer to p. 48 and p. 427. Forms of this kind are probably confined to Old Persian, Greek, and Latin.

2) To the formation of *Tense-stems*, i.e.

a) To the formation of a past tense, with corresponding mood-forms, participles, and infinitives from the pure verbal stem. These are the proper *aorist* forms, to be analysed more precisely hereafter. In these we may notice again the following differences, with regard to which, so far as the Vedic dialect is concerned, I follow Delbrück Altind. Verb. p. 177 ff.

α) A simple *s* is added, which is directly united with the personal endings, e.g. Skt. *a-bhāi-sh-ma* we feared (rt. *bhī*), *hā-s-mahi* we separated ourselves (rt. *hā*=Gr. *χα*, *χάσκω*). The greatest resemblance exists between the conjunctives. The mood-vowel here is *ă*, so that e.g. *hā-s-a-tē* is formed like *δύ-σ-ε-ται* as a conjunctive. If Latin forms like *au-s-i-m*, *faxit* are aorists, they belong here, *i* being added as an optative element to the stem expanded by *s* just as in *ed-i-m*.

β) *ish* is added, in which the origin of the *i* is not definitely established, e.g. *a-ǵan-ish-ṭa* he was born. Perhaps this *i* is of the same nature as the *ε*, which appears in *ἐ-στόρ-ε-σα* and similar forms, which are distinguished however by the use of the vowel *α*.

248 *γ*) *sish* is added, which ought probably to be regarded as a reduplicated *s* (*si-s*).

δ) *sa* is added, e.g. *a-dhuk-sha-t* he milked (rt. *duh*), Zend *vèn-ha-ṭ* he struck (rt. *van*). This formation corresponds to Greek aorists like *ἔ-δεικ-σε*, *ἔ-φῡ-σα* etc. In the 1 sing. and 3 plur. this appears also in Sanskrit in the place of *a*, e.g. *a-jan-sa-m* I held, 3 plur. *a-jan-san* (rt. *jam*). In precisely the same way Church-Slavonic forms aorists like 1 sing. *ja-sŭ* I ate (=**ad-sa-m*) just as if in Greek we had **ἔδ-σα* (cp. *ἔσ-σα*=*ἔδ-σα* I seated), *bi-chŭ* I struck (=**bi-sa-m*).

b) For the formation of forms from the *present* stem. Delbrück p. 181 with Grassmann calls such formations 'double stems.' They seem to occur in Sanskrit only with middle endings, e.g. *arĕ́a-sē* I praise (rt. *arḱ*). We might compare the Greek *ἐ-τάνυ-σσε* by the side of *τά-νυ-ται*. But there is a still more exact correspondence, as I have shown in Stud. viii. p. 460 ff., with the Latin imperfect conjunctive e.g. *lege-re-m* for *lege-se-m*. The *e*, which goes back to *a*+*i* and answers to the *αι* of the Greek aorist optative, is related to the *i* of the above-mentioned *fac-s-i-m* precisely as *vehe-t* is to *ed-i-t* (as conjunctive). *ster-ne-re-m* is formed in just the same manner as the Skt. *gṛ-nī-shē* I praise (rt. *gir*).[1]

c) For the formation of a *perfect* stem. This occurs, with any frequency, as was shown above p. 427, only in Latin and Keltic. In Greek we can only compare *ἴσᾰμι*.

[1] These *s*-formations from the present stem are related to those from the verbal stem much as the original forms in *-a-jā-mi*, postulated above p. 327 for the optative of the thematic verbs (e.g. **bōdhā-jā-mi* for *bōdhējam*), to those of the primitive verbs (e.g. **as-jā-mi* for *(a)s-jā-m*).

d) For the formation of the *pluperfect* from the perfect stem, as mentioned on p. 430. This is found only in Greek and Latin (ἤδε-(σ)α, *vīde-ram*).

e) For the formation of the *futurum exactum*, from the perfect stem, also only Graeco-Italian, cp. p. 435 (λελύ-σομαι, *solve-ro*).

f) For the formation of a simple *future* by the addition of *s*+*ja* to the verbal stem. This is treated in the next chapter.

3) For Mood-formation— 249

a) in the Latin imperfect conjunctive, which, as we saw above, is formed from the present stem (*lege-rem*),

b) in the perfect conjunctive of the same language (*lēge-rim*) for which we found a parallel on p. 427 in the Heraclean μεμισθω-σώνται;

c) in the Latin pluperfect conjunctive (*legi-ssem*).

4) For the formation of *desiderative* verbs in Sanskrit, for the most part accompanied by a reduplication of the stem: *pipī-sha-ti* he wishes to drink, rarely without this: *ap-sa-nta* they wished to attain (rt. *āp*). Latin verbs like *vīsere* are akin, and also the Greek desideratives in -σείω (γελα-σείω) which are not yet fully explained.

So far we have been proceeding purely statistically, merely pointing out and grouping the facts, so that no objection can be raised against our statement even by one who holds a different view from my own as to the origin of the sibilant. It seems to me, in view of the difference of opinion which exists upon various fundamental questions of comparative grammar, of the greatest importance to start from the neutral territory of the facts of the case. But now the question forces itself upon us, What is this sibilant? Whence comes this sound which intrudes everywhere? We can now see so far, I believe, into the structure of the Indo-Germanic verb, that we may say there are only a few possibilities open to us. No one will readily think seriously of a purely phonetic origin out of nothing. Any suggestion of the kind that has been made, does not appear to be maintained even by those who had put it forward tentatively. For instance, Westphal does not venture to defend the *s*—after the example of other sounds so explained by him—as a 'separating consonant.' There are doubtless, just as in the case of the *ja* discussed on p. 204, only two possibilities. The one is to place the *s* in the same class with the stem-forming elements, which we learnt to recognize in such rich abundance in the present stem, and of which a fresh instance met us in the perfect and some aorist forms with κ. We should in that case have to start with a syllable *sa*, and put this along with that κα and also with the *a*, *na*, *nu*, *ta*, *ska* of the present stems. As such syllables appeared to us to be stem-forming nominal suffixes, in 250
this case the *s* like the other suffixes would be of pronominal origin. Ascoli in his Studj Ario-Semitici p. 26 has actually put forward the conjecture that the *s* had such an origin, and Westphal comes to a similar conclusion, except that he conjectures that the *s* arose from the *t* so common in the formation of nominal stems. But such a phonetic transition is quite improbable for so early a period in language as that here in question. The sibilant itself however appears as a stem-forming suffix almost solely with a preceding vowel, especially in the suffix *-as*. We could at most appeal for support to the infinitive suffix *-sani*, discussed by us on a former occasion, and the few forms that are possibly akin to it. Another reason against the suffix hypothesis lies in the Indian

aorists which end in the 1 sing. in *si-sha-m*, e.g. *a-jā-sisha-m* I went (rt. *jā*), *a-gā-sish-us* they sang (rt. *gā*). These forms we cannot help regarding as reduplicated. But reduplication, though often occurring in the verb, is unknown to word-forming suffixes. Further, where in the whole realm of verbal forms did a stem-forming suffix show itself in such an extraordinary manifold application? Stem-forming suffixes have as their purpose to individualize: they serve in their varied multiplicity for the synonymic distinction of *nominal* stems. From this they do certainly make their way into the verb. But it was precisely for the present stem that this varied nominal stamp of the stem was characteristic; and even in the case of the present stem we preferred (p. 204), for reasons there adduced, to regard the syllable *ja* as an auxiliary verb. It is especially difficult to conceive of the use of a stem-forming suffix for particular personal endings e.g. in ἔ-δο-σαν. For the suffix is a firmly attached element of the stem, not a moveable accretion on one particular personal ending. Besides, a stem-forming suffix always consists of a syllable, not a single consonant. If therefore anyone should so explain the *s* in forms like Skt. *hā-s-mahi*, Lat. *au-s-i-m*, he would have to maintain that both here and also in the future ending *-s-jā-mi* a vowel had been lost, which would be hard to prove. For in the verb the
251 primitive method of formation, which does not dread the collision of consonants, is rightly held to be the earlier.—Now over against these reasons *against* the suffix hypothesis there are just as many which speak *for* the explanation of the *s* from an auxiliary verb. In the first place the fact that at a later period inflected and hence quite unmistakeable forms of the verb substantive are used for periphrasis quite in the way which we here assume. Compare—

ἔ-δο-σαν Lat. *vidē-runt* εἰκ-σᾱ-σι	} with	τετραμμένοι εἰσί
ἴ-σᾱ-μι *lū-sī*	} „	*vīsus sum*
ἤδε-(σ)α *vide-ra-m*	} „	*visus eram*
εἴ-σομαι *vīde-ro*	} „	*visus ero* ἐγνωκὼς ἔσομαι.

It may be regarded as an established method of linguistic enquiry to proceed from undoubted facts in later stages of language to earlier stages. The employment of the independent pronominal forms in the verb '*je donne*' 'I give' has led to a right understanding of the personal endings, just as the use of the article has to that of the word-forming suffixes. Such facts from later periods show at any rate what was linguistically *possible*, even at an earlier time. To change the possibility into probability, of course we always need a precise weighing of the particular points in question.

Now the terminations of the sigmatic verbal forms in many instances exactly resemble the forms of the rt. *as* which are still in actual use. The twofold method of formation previously discussed, viz. either by the immediate addition of the present endings to the root, or by the addition of the same to the stem expanded by *a* (Greek ἐς and ἐα: cp. pp. 101, 119) may be detected here too. Compare

1 sing. *āsa-m* = Gr. *ἦα* Lat. *era-m*, and the ending *sa-m* Gr. *σα*
(plupf. *ε-α* = Lat. *e-ra-m*)
3 plur. *ās-an* = *ἦσ-αν* and the ending *-σαν*
3 du. *ās-tām* = *ἦσ-την* and the ending *s-tā-m*
(Skt. *a-svār-sh-tām* rt. *svar*)
3 sing. conj. *as-a-ti* and the ending *s-a-ti* 252
(Skt. *nē-sh-a-ti* rt. *nī* lead)
3 sing. opt. (*a*)*s-jā-t* = Lat. *s-ie-t*, *sit* and the ending *-sit* (*au-s-it*)
1 sing. fut. *ἕσομαι* and the ending *-σο-μαι* (*λύ-σο-μαι*)
Lat. *ero* and the ending *-r-o* (*vīde-ro*).

It is especially noteworthy that two main formations of the sigmatic aorist in Sanskrit, to which we shall also find the Greek parallels, exactly answer to this twofold formation of the rt. *as* with and without the added stem-forming *a*. There is further the fact that two other auxiliary verbs, especially adapted by their colourless meaning for any verbal form, viz. rt. *bhu*=Lat. *fu* and rt. *dha*=Gr. *θε* do, are employed in exactly the same way to complete the tense-system. Are we to regard it as mere chance that, just as in Latin the roots *es* and *fu* mutually supplement each other when used independently, so also in the imperfect we have *era-m* and *-ba-m* which has come from *-fu-am*, though the latter only in composition, that in the perfect *-si* and *-ui*, *vi* i.e. *fui* (Osc. *aamana-ffe-d*), in the future *-so* (Osc. *cens-a-ze-t*) and *-bo* (from *fuo*) reappear? The employment of the rt. *dha*=Gk. *θε* will be discussed later on in its proper place. Here the Gothic *sōkī-dēdum* we *sough-t* with its reduplicated ending proves the addition of an auxiliary verbal form quite as clearly as the previously mentioned Skt. *si-sha-m*. It is true that a different theory has been advanced with regard to this Gothic formation. But the attempt to deny the origin of the syllable *dē* from the rt. *dha* ends with the public acknowledgement of its champion that he is quite unable to explain this formation. Since Westphal first expressed his doubts as to the explanation of many verbal forms from auxiliary verbs established by Bopp, though these only extend to a portion of the forms, similar attacks upon this theory have been more than once repeated. But no one has brought any decisive reason against the admissibility of such a composition. As soon as we presuppose, as we must, that the first beginnings of a compound formation belong to a time in which nominal stems were not yet characterised by case-endings—and this assumption is just as absolutely necessary for the explanation of 253
the *s* from a stem-formation—we can completely understand how a compounded stem could be formed from the coalescing of a verbal stem, to be regarded as a nomen agentis, with the *s* as the remains of the rt. *as* be, which compound might afterwards supply the type of similar complicated structures. We have already stated our opinion upon these questions and various differing views on p. 19 ff. The objection has recently been raised again that there is no proof of our views: but this rests upon a misapprehension of our means of knowledge in these difficult questions. Proofs are only possible in historical investigations by the aid of witnesses: and of these there is a complete lack for the earliest history of language. All positive 'glossogonic' statements are always, strictly speaking, hypotheses, but in some cases hypotheses of the same degree of probability as those on which the current conceptions in natural science are based, e.g. the explanation of the solar system and the like. It can-

not be denied that the same degree of probability has not been reached in the case of others. But anyhow the one which is here in question belongs to the class of the most probable hypotheses, those which at one stroke explain a large number of facts.

We return now from these more general considerations to our sigmatic aorist. If the *s* of this tense is that of the verb substantive, a further question cannot be passed over, viz. whether we have to recognise in this a composition of the verbal stem with a particular form of the verb *as*, or a firmer union of both stems into one compounded stem.

Bopp, who, as is well known, laid especial stress upon the demonstration of compounded verbal forms, always held the view that in the case of a form like Skt. *a-dik-sha-m*=ἔ-δειξα there was the union of a predicative root with the *preterite* of the rt. *as*. Thus e.g. in his Vergl. Gr. ii.[2] p. 423. Schleicher too Comp.[3] p. 796 expresses himself as follows: 'An aorist of the rt. *as*, which here too loses its initial letter, is added to the verbal root: the augment is prefixed.' I followed this view, though less positively, in the Elucidations p. 120 and 'Chronologie' p. 59. Misled by Sanskrit, which offered only indicative aorists, some
254 scholars have not had sufficient regard from the first to the fact that the question involves not merely indicatives, but also conjunctives, optatives and the corresponding infinitives and participles, both throughout the active and the middle, in short a whole system of forms. In Vedic Sanskrit this system is not so richly developed as in Greek, but it is by no means devoid of a conjunctive and not wholly without an optative. This deficiency Delbrück has himself recognised in an *addendum* (p. 239) to his statement given on p. 19. Clemm deserves the credit of having first more thoroughly discussed the question (Stud. vii. p. 56 ff.), and brought it back, as I believe, to the true point of view. Our whole representation of the structure of the verb is based upon the view that neither a conjunctive and optative, nor a verbal noun can come from a past tense. ἐγένετο is no more the *prius* of γένωμαι, γένοιτο, than ἐγίγνετο of γίγνωμαι, γίγνοιτο, or ἤδειν of εἰδείην. On the same fundamental notion Ahrens bases his doctrine of the Greek inflexions, in which with especial clearness and consistency for every oblique mood—if we may so call the conjunctive and optative—and for every past tense a *primarium* is laid down, though this is wanting in the case of the aorists: e.g.

primarium [λάβω], conj. λάβω opt. λάβοιμι etc. past ἔ-λαβο-ν.

In Chap. XIII. we saw that the thematic aorist is nothing but a system of forms from shorter stems, the present indicative, or as we may also say the *primarium*, of which has fallen out of use. Hence it follows that we are justified in assuming for the formal completion of such a system, the actual existence of a *primarium*, even though in any particular case such an indicative present may never have actually existed, but we must look rather to extensive imitation of increasing analogy after the type once discovered. It is not at all an objection to this view that the strictly aoristic force developed itself only at a time when the *primarium* had been lost. Consistency evidently leads us to presuppose also sigmatic primaria, or presents indicative, thus e.g. for the conjectural
255 Indo-Germ. aorist **a-dik-sa-m* a **dik-sa-mi*. Following out this idea we may give as a stem for the whole system of forms which go together *dik-sa* (as well as the shorter *dik-s*), without however on that account

maintaining, that such a stem actually existed or that the union of the rt. *dik* with *s-a*, which came from *as-a*, was brought about at a time preceding the construction of verbal inflexion.[2] There is little probability in the latter notion. But if we assume that at a time when the nominal stems were not yet provided with case-endings, a twofold present *dik-s-mi* and *dik-sa-mi* arose by the incorporation of a nominal *dik* 'point' (cp. Lat. *jū-dic* 'right pointing') both with *as-mi* and also with *as-a-mi*, which was probably in use side by side with it (cp. the opt. ἔ(σ)-ο-ιμι), we can thus explain, I believe, all the phenomena here under consideration. From the same time, in which the formation by the addition of forms of the verb substantive was still in full swing, the other sigmatic tense, mood, and personal forms may also date; they are as it were isolated offshoots, of which some remained isolated, others sprang up abundantly, though in part at a much later time.

This view presents the following advantages over the older view which starts with the past tense. In the first place, an easier explanation of the past tense. To get from *dik-āsat* he was pointing, to *a-dik-sa-t*, it was necessary to assume a transposition of the augment from the middle to the beginning of the word, which is not wholly without difficulty, especially as we may conjecture that the augment-syllable *a* cannot have long preserved itself separate from the initial *a* of the rt. *as*. On the other hand *a-dik-sa-t* is very simply explained as a past tense subsequently developed from **dik-sa-ti*. The augment was in that case prefixed to the verbal form precisely as in all other past tenses. A second advantage of this view affects the relations of the meaning. 'At first sight,' I say in Chron.[2] p. 58, 'it is surprising to find a root of this seemingly durative meaning undertaking such a formation (that of signifying momentary action). For *being* is certainly, 256
it would seem, very strictly a *remaining*, an *enduring* in something. We should therefore expect the rt. *as* rather in present forms, like Lat. *pos-sum* (=*potis-sum*), than in aorists.' Now Clemm's theory does give us such presents. The employment of the sigmatic forms to act as aorists would therefore be explained somewhat as follows. By the side of the many other ways of forming the present stem, there were, during that linguistic period in which the compound method of formation came up, probably the same period as that to which we owe the present stems in *-ja*, presents in *-s-mi* and *sa-mi* with their moods, and belonging to these past tenses in *-sa-m*. Perhaps even at a time when the consciousness of the origin of these forms was not wholly extinct a contrast arose between the forms in *-ja-mi* and those in *-sa-mi*, the former denoting rather the strictly durative force of going about a thing, striving after a thing, the latter rather *being* as opposed to *becoming*, that is, so to speak, the point of congelation of the action. At a yet earlier time the distinction of continuous from momentary action had presented itself to language, and had been denoted by the distinction of the expanded forms from the lighter ones. We can understand how these sigmatic forms attached themselves to the latter, the aorists, and how thus, perhaps first in the past tense, a form which properly meant 'I was pointing' came to be

[2] C. Pauli (Kuhn's Zeitschr. xx. p. 321 ff.) in his reply to Merguet on Latin verbal formation, in which there is much upon this question well worth notice, defends the view of such a composition of the stem. But auxiliary verbs can hardly have developed at all without inflexion.

used in the narration of mere facts, while afterwards the oblique moods also acquired a momentary force. The more the need for such a distinction of the kind of time grew, the more necessary was it to supplement the old partly primitive partly thematic forms, which on account of various phonetic difficulties had not maintained themselves in the case of all stems, e.g. but rarely with those ending in a vowel. The sigmatic forms filled up this gap. We can now understand further how in consequence of this the sigmatic primaria died off, as being superfluous for the present just as the primaria *βῆμι, *λάβω, *τύπω have died off, and how finally in this way the main requisite for aoristic use, that they were accompanied by no corresponding present, was attained for these sigmatic formations.

257 The numerous derived verbs of the Greeks acquired their aorists only in this way. I now believe that attaching equal importance to the form and to the meaning I can so explain the origin of the sigmatic aorist. I do not at all fail to perceive that such speculations as to the genesis of the forms of language do not guide us to the certainty which is attainable in other questions. But to give them up, and to content ourselves with the mere summary phrases of stem-formation or analogous formation would be ultimately to give up the proper understanding of the structure of the verb, and to sink down from the idealistic flight which distinguishes comparative philology, to the purely empiric record of facts.

Now that it has been made probable that an indicative in *-sa-mi* with the character of a present once existed, the question arises whether we cannot point out some traces of it. Clemm l. c. is probably right in suggesting the Sanskrit desideratives, in which the syllable *-sa* is added as a rule to the stem strengthened by reduplication, e.g. *pipā-sa-ti* he wishes to drink (rt. *pā*), *di-dṛk-sha-ntē* (rt. *darç*) they wish to see, like a conceivable Greek *δι-δερκ-σο-νται. Sometimes the reduplication is wanting: *ap-sa-nta* they wished to attain (rt. *āp*). The desiderative force is doubtless here the result of the reduplication. From the meaning 'he is a strong drinker'—the 'strong' lies in the intensive force of the reduplication—we very easily arrive at the desiderative force. After such an application had once established itself in forms of this type, they might originate even without reduplication, just as there are some perfects without reduplication, and many past tenses without augment. We have an exactly similar instance in the Lat. *vīsere* : *visit* corresponds to the Skt. *vivid-i-sha-ti* which differs but slightly in its manner of formation. From Greek Clemm quotes *ϝίσᾱ-μι* as similarly formed. As far as form goes there is no objection to be made to this: and no one can deny that the meaning is purely that of a present, while the common Homeric 3 pl. *ϝί-σαν* suits very well as a past to the present-like *ϝί-σαντι*. But what makes me still hesitate is the fact that the 3 pl. *ἴσᾶσι*, which cannot be separated from the Doric *ἴσᾶμι*, belongs entirely to the system
258 of the indubitably perfect *ϝοἶδα*=Skt. *vēda*. For this reason *ἴσᾶμι* was quoted as one of the traces of a sigmatic perfect, for which naturally we must assume the loss of the reduplication.

With greater justice we may find relics of the *primaria* of which we are in quest in certain formations which have allowed the *a* to pass into the ordinary form of the thematic vowel.—For instance, *ἀλέξασθαι* N 475 *θήγει ἀλέξασθαι μεμαὼς κύνας ἠδὲ καὶ ἀνδρας* is incontestably an aorist. But how is this form related to *ἀλεξέμεναι* A 590 *ἀλεξέμεναι μεμαῶτα* and

to ἀλεξόμενος Herod. i. 211? ἀλέξασθαι, as well as the future ἀλέξειν, which has been here and there attacked (e.g. Xen. Anab. vii. 7, 3), but which is supported by grammarians (Bekker Anecd. p. 415), is evidently from the stem ἀλεκ, which has come by anaptyxis from ἀλκ (ἀλκή, ἀλκαθεῖν), not from the stem ἀλεξ. But ἀλέξεσθαι differs from ἀλέξασθαι only as βήσεσθαι differs from βήσασθαι, that is to say, the rare vowel α has made way for the more common ε. I. Bekker, Homer. Bl. i. 319, condemns the form with α in Homer as 'an unnecessary and misformed aorist,' but has not however ventured to banish it from the text. I therefore take ἀλέξομαι as as accidentally preserved present, which stands for *ἀλέξαμαι. But the *s*-formation here comes down from a pre-Hellenic time, for ἀλέξω corresponds to the Skt. *rakshā-mi* I deliver (Princ. i. 475).—The relation is just the same between ὀδάξασθαι and the present ὀδάξεσθαι, only that both forms, which undoubtedly go back to the rt. δακ, are more rare. The former is quoted only from Anth. ix. 86 and Nicander Ther. 306, the latter from Hippocrates, while Xenophon Conv. 4, 28 gives the active imperfect ὤδαξον.—Without the occurrence of forms with α, we can plainly find analogous formations in ἀέξω i.e. ἀϝέξω by the side of αὔξω, both to be compared with Lat. *aug-eo*, Lith. *aug-ti*, Goth. *aukan* (Princ. i. 479). Here too the sibilant extends back to the pre-Hellenic time (cp. Goth. *vahs-ja* and Lith. *auk-sz-ta-s*).—Finally δέψειν knead by the side of δέφειν (comic writers) and ἕψειν cook by the side of πέσσειν aor. πέψαι are of the same kind. Perhaps it is better here generally to explain the σ thus, instead of regarding it as a root-determinative (Princ. i. 83).

After these investigations as to the origin of the sigmatic aorist, we turn to details. The aorist forms of Greek which belong here fall into two main groups, according as the distinctive mark of this tense consists of a single σ or the syllable σα (rarely σο, σε). The second group is the 259
prevailing one. Of the first we find only some relics in the language of poetry, especially epic. We begin with these inasmuch as they bear the most antique stamp.

A) Relics of a Primitive Formation.

1) Conjunctive forms.

We owe it to Westphal, who first in his Metrik (p. 280 of the first edition [3]) pointed this out, and in his Method. Gr. i. 2 p. 266 ff. carried it out more completely, and to Paech in his doctoral dissertation 'De vetere conjunctivi Graeci formatione' Breslau 1861, that the traces of a sigmatic aorist without a stem-vowel have been discovered, and that thereby, as has been recognized above p. 312 f., essentially new light has been thrown on the formation of the Greek conjunctive. We have shown in Chap. XIV. that the sign of the conjunctive in the primitive formation is a short α, which is added to the stem, but in the thematic the lengthening of the already existing short vowel, and have rejected the notion that, as was formerly supposed, the long vowels of the thematic conjugation could be shortened again at pleasure. This notion could not be destroyed root and branch as long as there was a considerable number

[3] Cp. p. 69 f. of the second edition.

of sigmatic aorist forms e.g. *φυλάξομεν*, *ἐπαμείψομαι*, *πεμπάσσεται*, *ἱλασόμεσθα*, for which no other explanation had been discovered but such a shortening, justified by many with the empty phrase of 'metrical license.' Hence it was a very happy thought of the scholars mentioned above to take forms of this kind as conjunctives not from aorist stems in *-σα* with shortening, but from aorist stems in *-σ* with the short mood-vowel *ο* or *ε*. These conjunctives belong therefore, as was intimated already on p. 438 to the category of the forms quoted there under 2, *α*, *α*. An indicative, not indeed existing but deducible according to analogy **ἐφυλαξ-μεν*, **ἐβησ-μὲν* would have been formed like Skt. *a-bhāish-ma*
260 (rt. *bhī* fear). Such indicatives have fallen out of use probably because of the great harshness of the groups of consonants. But conjunctives with the mood-vowel *ο* or *ε* and thus related to the indicative just as *ἴ-ο-μεν* to *ἴ-μεν*, *φθί-ε-ται* to *ἔ-φθι-το* did maintain themselves, as there was no harshness here present, in the usage of the Epic bards, to whom we owe the faithful preservation of so many other gems. Greek and Sanskrit here agree to a remarkable extent. According to Delbrück's investigations (Altind. Verb. p. 195) conjunctives of the like formation from sigmatic stems are extremely common in the Vedic dialect. Thus

τίσετε (Φ 134) : **ἐ-τῖσ-τε* :: Skt. *nēshatha* : *naishṭa* (rt. *nī* lead).
χώσεται (A 80) : *ἔχωστο* :: Skt. *rāsatē* : **arāsta* (rt. *rā* bestow).

The enumeration of the individual forms which belong here cannot easily be made with completeness, because the limit between the future and the conjunctive aorist, especially in the language of Homer, is often a wavering one. Abundant instances are supplied by Paech in his dissertation; and Stier Stud. ii. 138 gives a calculation of the frequency of the Greek aorist conjunctives with a short vowel. The difference between the figures of the two scholars is not very great, but there is some difference, which for the reason above-mentioned is not to be wondered at. It will be sufficient here to give a number of indubitable instances of each personal form. With regard to the Elegiac and Iambic poets I may refer to Renner's fuller references (Stud. i. 2, 37).

1 plur. act.

Κ 65 *μή πως ἀβροτάξομεν ἀλλήλοιιν*.
Α 141 ff. *νῦν δ' ἄγε νῆα μέλαιναν ἐρύσσομεν εἰς ἅλα δῖαν*
ἐς δ' ἐρέτας ἐπιτηδὲς ἀγείρομεν . . .
. . . ἂν δ' αὐτὴν Χρυσηίδα καλλιπάρῃον
βήσομεν
Theogn. v. 1055 *ἀλλὰ λόγον μὲν τοῦτον ἐάσομεν, αὐτὰρ ἐμοὶ σύ*
αὔλει καὶ Μουσῶν μνησόμεθ' ἀμφότεροι.
Pind. Ol. vi. 24 *ὄφρα κελεύθῳ τ' ἐν καθαρᾷ*
βάσομεν ὄκχον, ἵκωμαι δὲ . . .

261 2 plur. act.

μ 27 *ἵνα μή τι . . .*
ἢ ἀλὸς ἢ ἐπὶ γῆς ἀλγήσετε πῆμα παθόντες
Φ 134 *εἰς ὅκε πάντες*
τίσετε Πατρόκλοιο φόνου

2 du. act.

Ρ 452 *ὄφρα καὶ Αὐτομέδοντα σαώσετον ἐκ πολέμοιο*

3 du. act.

Ε 233 μὴ τὼ μὲν δείσαντε ματήσετον, οὐδ' ἐθέλητον
ἐκφερέμεν πολέμοιο

1 sing. mid.

Ξ 237 αὐτίκ' ἐπεί κεν ἐγὼ παραλέξομαι ἐν φιλότητι
Β 488 πληθὺν δ' οὐκ ἂν ἐγὼ μυθήσομαι οὐδ' ὀνομήνω

2 sing. mid.

γ 45 αὐτὰρ ἐπὴν σπείσῃς τε καὶ εὔξεαι, ἣ θέμις ἐστίν
Solon fr. 20, 1 ἀλλ' εἴ μοι κἂν νῦν ἔτι πείσεαι ἔξελε τοῦτο

3 sing. mid.

θ 444 μή πως τοι καθ' ὁδὸν δηλήσεται
Ι 409 ἐπεὶ ἄρ κεν ἀμείψεται ἕρκος ὀδόντων
Mimn. 2, 9 αὐτὰρ ἐπὴν δὴ τοῦτο τέλος παραμείψεται ὥρης

1 plur. mid.

Α 444 ὄφρ' ἱλασόμεσθα ἄνακτα.

The total number of the formations of the kind which belong to eight different personal forms is not small. Stier Stud. ii. 138 counts up about 120 Homeric instances, Westphal Method. Gr. ii. 1, 267 f. 117. On the other hand it has not been noticed hitherto, but it is very noteworthy, that in Homer the aorists conjunctive with a long vowel like ὄρσωμεν Η 38, πέμψωμεν ν 383, δείσητε Ω 779, ἀντιάσητον Μ 356, δηλήσηται Γ 107, μνησώμεθα Ο 477 are quite in the minority. I do not find more than 18 in my collections, and of those it is only μνησώμεθα which often occurs. The 1 sing. conj. in -σωμαι is altogether wanting in Homer. Hence for the aorist the formation with the short vowel is decidedly the rule, the later rule is the exception in the Homeric dialect. The distinction from the conjunctive of the present and the thematic aorist (above p. 316) and the utterly untenable character of the old theory of occasional shortening comes out thereby all the more plainly.

All the aorist conjunctives with a short vowel besides these forms and 262
those corresponding to them from other stems are of a doubtful nature. This is the case with ω 89

ὅτε κέν ποτ' ἀποφθιμένου βασιλῆος
ζώννυνταί τε νέοι καὶ ἐπεντύνονται ἄεθλα.

We discussed ζώννυνται above p. 319. ἐπεντύνονται can only have a short vowel as an aorist conjunctive (cp. ἐντύνεαι ζ 33), and so Paech p. 20 takes it. But this would be the only instance of a conjunctive form with a short vowel before two consonants. If we really had to take this as a relic of an archaic formation, and had not to write ἐντύνωνται, it would be natural to conjecture that also in other corresponding forms e.g. ἀγάσησθε Ξ 111, κατακοσμήσησθε χ 440, δάσωνται ρ 80 the long vowel was due to the copyists, not to the poet. But the undeniably existing forms with a long vowel warn us to be cautious.—Cretan forms like those in the inscription of Dreros l. 161 ὅς δέ κα μὴ φυτεύσει, l. 118 ὅσσα κα μὴ πράξοντι (more correctly πραξόντι) might similarly be taken as analogues of βήσομεν etc., but we decided on p. 323 to regard them as futures.—For the three persons singular and the

3 plur. of the active, and for the 2 and 3 plur. of the middle mentioned already, the form with the long vowel is the only one known in Homer: *ἀκούσω, ἀπεχθήρω, παρεξελάσησθα* (Ψ 344), *ἠβήσῃ, ζεύξῃ*.

2) Infinitive Active.

With regard to the infinitive of the active aorist comparative philology has not yet arrived at any result which is on all sides satisfactory. It is true that a similar formation is not lacking in Sanskrit. Even Bopp Vergl. Gr. iii.[2] 270 compared Greek infinitives like *λῦ-σαι, δεῖκ-σαι* with the isolated Vedic infinitives in *-sē*, e.g. *ǵi-shē* (rt. *ǵi*) to sing. Schleicher Comp.[3] p. 364 and Wilhelm 'de infinitivo' p. 10 have followed him in this. But these Vedic forms, of which by the way Delbrück Altind. Verb. p. 223 recognizes only one other example *prak-shē*[4] (rt. *parḱ* fill) besides *ǵi-shē*, are on the other side compared
263 with the Latin infinitives in *-se* (*es-se* for *ed-se*) and *-re* (*da-re, i-re*), and the latter comparison is the less to be rejected that the much more common Vedic infinitives in *-a-sē* find their parallel in the Latin infinitives in *-e-re*. We may state the relation thus:

ǵi-shē : Lat. *dă-re* :: *ǵīva-sē* (to live) : Lat. *vivere*.

Undoubtedly the first formation is primitive, the second thematic. Neither has anything in common with the aorist. We shall rather be much inclined to bring the infinitive suffix *-se*=Lat. *-se, -re* into connexion with the Vedic infinitive suffix *sa-n-i* discussed above p. 349. Scholars in their eagerness to find proof of case-forms in the infinitives have for some time past paid much too little attention to the connexion of the infinitives with definite tense-stems. It is not possible for a form like *φῡ-σαι*—divided into *φυ* and *σαι*—at the same time to be the infinitive of *ἔ-φῡ-σα*, and in its termination to correspond to the *-sē* of *ǵi-shē*, the *-re* of *da-re*. If so analysed *φῡ-σαι* would belong to the indic. *ἔ-φῡ-ν*, not to *ἔ-φῡ-σα*. But nothing is clearer than the connexion of the infinitive in *-σαι* with the remaining sigmatic aorist formations. From Homer onwards this is plain in hundreds of undoubted instances; and in meaning too *φῦσαι, στῆσαι, βῆσαι* have nothing whatever in common with *ἔφῡν, ἔβην, ἔστην*, but everything with *ἔφῦσα, ἔβησα, ἔστησα*. Hence the earlier hypothesis is to be given up, in the sense in which it was suggested. There remain, as far as I can see, three possibilities, viz.

a) we might regard all agreement between the endings *-se* and *-σαι* as deceptive, and so might recognize in *ǵi-shē* the ending *-se*, but in *φῡ-σα-ι* either the locative ending *-ι*, added to the sigmatic stem expanded by *α*, or the dative ending *-αι* (Skt. *ē*) added to the stem *φῦσ*. This twofold possibility has but little probability, because in that case the Greek formation would be destitute of all analogy. Or

b) *-sē* as well as *-σαι* might be an added infinitive of an auxiliary character from the rt. *as* be. This theory would indeed derive the ending *-σαι* from the same source as the *-σα* of *ἔφῦσα*; but we should have to assume that the syllable *σα* was united with the rt. *φυ* by two totally
264 different creative acts, or in other words, that forms like *φῦσαι, δεῖξαι* were formed quite independently and only later, and as it were accidentally

[4] Grassmann Wörterb. zum Rig-Veda p. 849 derives *prakshē* from the equivalent expanded root *praksh*.

taken over into the system of ἔφῡσα, ἔδειξα, while the Sanskrit forms remained quite foreign to this system. There is little that is attractive in this possibility either.

c) Hence I incline most to a third explanation. If there were at an early date various infinitives with the ending *-sai* (Skt. *sē*), then, as they were sometimes attached directly to the root (*ǵi-shē, dă-re*), sometimes to the present stem (*ǵīva-sē, bhōǵa-sē*, Lat. *vivĕ-re, dūcĕ-re*), they might also very easily be united to the shorter sigmatic stem δειξ-σαι, φυσ-σαι. The double σ would then naturally have to be simply reduced to a single one after consonants. After vowels of course two alternatives were possible, and it may be that forms like καλέσσαι, τελέσσαι, τανύσσαι have preserved the double consonant from this time. I do not wish however to lay any stress upon this last point, because the σσ is found also outside the infinitive. In any case καλέσαι and the like do not offer the slightest difficulty in the way of this explanation. For the simplification of an earlier double σ is one of the most common phonetic processes: cp. ὄρεσσι—ὄρεσι, πέπυσσαι—πέπυσαι, μέσσο-ς—μέσο-ς.

If this explanation is correct we have in these infinitives also a relic of the shorter method of forming this aorist by the simple addition of σ: and that is why I have placed them here. Probably we must also regard Latin infinitives like *dixe*, *exstinxe*, and conjunctives of the pluperfect like *dixem*, *extinxem* not as syncopated from *dixisse*, *dixissem*, but as coming directly from *dix-se*, *dix-sem*. Whether δεῖξαι is quite identical with *dixe* I will not here determine, for this depends upon the further difficult question whether in the Latin perfect stem we must assume by the side of the primary stock of genuine perfect forms an intermixture of aoristic forms as well.

B) The ordinary Formation with a Stem ending in α.

1) The final letter of the stem.

The formation of the several personal forms presents little that is exceptional in the *indicative*. The sigmatic aorists in -σα are common to all Greek dialects. After the forms of the present stem there is 265
hardly any other tense-formation so common as this. The preservation of the heavy α in all but a small circle of exceptions became absolutely a distinctive sign of the tense, just as in the perfect; but in the case of the aorist this vowel was carried out consistently even in the formation of moods and verbal nouns. We referred to the agreement of this α with that of the Ionic ᾱ or ᾰ on p. 440.

It is only in the 3 sing. act. that the α has universally passed into the weaker ε. The reason is evidently the same as in the case of the perfect. In these much-used forms the vowel was protected by no consonant from the thinning into ε, while in the 1 sing. the original sign of the person, the nasal, was evidently retained longer, and then, disappearing by degrees, just as in ἑπτά by the side of Skt. *saptan* Lat. *septem*, δέκα=Skt. *daçan* Lat. *decem*, still exercised sufficient influence to preserve the quality of the vowel.

In the 2 sing. mid. -αο remains as a rule uncontracted in Homer. Of the 11 examples of this form 9 end in -αο; ἴψαο Α 454, ὠδύσαο α 62, ἐγείναο Ε 880, only 2 in -ω: ἐκτήσω ω 193, ἐπεφράσω Φ 410. In Hesiod

according to Förstemann de dial. Hesiod. p. 32 there is only διεδάσσαο Theog. 544. Of the forms in -σᾱ, which the grammarians tell us are Syracusan (Ahrens Dor. 198) we find two in Theocritus ἐπάξα iv. 28 (but immediately before in l.[r]27 ἠράσσαο) and ἐκτάσα v. 6.

The *imperative* presents more difficult forms in the 2 sing. of the active, and middle. In the active we should expect the termination -α or at any rate -ε. The latter actually occurs in οἶσε (χ 106), the discussion of which however we prefer to take in connexion with the analogous phenomena. This form quite agrees with the isolated examples of this formation in the Vedic dialect, e.g. *nē-sha* lead (rt. *nī*), but according to Delbrück p. 198 this explanation of the forms is not quite certain. Instead of this -σε -σον has become the prevalent termination from Homer onwards (ἄκουσον Z 334, ἔασον Π 451, ὄμοσσον A 76 etc.). The question is how the ν is to be explained here. Pott Et. Forsch. ii.[2] 1, 660 sees in it an appended particle νύ. In that case this Greek form would have originated in the same way as the Lithuanian im-
266 perative in -*k* e.g. *bū-k* be, for which see Schleicher Comp.[3] 827. But we have no certain instance of such affixes in the structure of the Greek verb. Still less can we agree with Bopp, who finds in the ν the remains of the termination -θι, which, he thinks, first passed into -ϛ (*τύψα-θι, *τύψας) and finally into -ν. For all these intermediate forms are purely hypothetical and the assumed phonetic changes undemonstrable. And as we have repeatedly seen that nasals are developed after short final vowels, and become more or less firmly established—especially in the 3 plur. of the imperative (cp. p. 308)—the simplest explanation is that suggested by Giese (Aeol. Dial. p. 110), according to which the ν of ἄκουσον, δεῖξον etc. is a nasal after-sound, which became firmly attached, and which then had as its result the dulling of α into ο. The Cyprian dialect has recently supplied us with an instance of such nasal after-sounds in the genitives in ων e.g. Ὀνασίλων=Dor. Ὀνασίλω, for which an etymological justification has been sought in vain. The Syracusan imperatives θίγον, λάβον adduced by Giese as analogous were mentioned on p. 303.

It is far more difficult to explain the 2 sing. mid. in -σαι. Here too there is no trace of any dialectic variation. In Homer we find forms like δέξαι (E 227), κόμισαι (E 359), λίσαι (A 394), λόεσσαι (τ 320), πείρησαι (Λ 302), φράσαι (π 260), ὑπόκριναι (τ 535). The attempt of Bopp (Vergl. Gr. § 727) to argue from a conceivable active *τύψαθι to the purely hypothetical middle intermediate form *τύψασθι, and to get from this by the rejection of the σθ to τύψαι cannot at all satisfy us. Benfey (Kurze Sanskrit-Gr. p. 90) intimates that he regards -σαι as a conjunctive ending, for which he quotes the analogy of a purely imaginary Sanskrit -**svāi*. But τύψαι is entirely without any trace of a mood-sign. Following Benfey Misteli Ztsch. xv. 332 conjectures that -σαι is to be taken as a 'fuller' imperative ending and that τύψαι is for τυψα-σαι. But we should certainly expect τυψα-σο, for the imperative is by no means fond of fuller endings for the second person. Finally Schleicher declares the riddle to be unsolved. There might possibly be some truth in the notion that we are to take not the simple ι added to the tense-stem, for which hardly anyone will claim the force of a middle
267 personal ending, but -σαι as such here. Only the form would then be proved to be an indicative. δέξαι, τύψαι might be indicatives used as

imperatives, just as on an earlier occasion we found the Sanskrit second person in *-si* used in a like function, and even conjectured traces of the same formation for certain Greek forms (p. 298). The question is what sort of indicatives they are. δέξαι might be the second person of an unthematically formed *δέγμαι, the present to the past δέκτο, but certainly no one will readily assume the existence of a *τυπ-μαι or *τυμ-μαι, *πειρη-μαι. Hence it would be better to think of a *δεξ-μαι as a primary to the conjunctive δέξ-ο-μαι, *τυψ-μαι and the like; just as on p. 444 we came to the conclusion that forms of the kind must once have existed. But it does not seem impossible that a single person of a shorter indicative formation belonging to the same group of tenses but afterwards obsolete, should have established itself as an imperative.

Of the *conjunctive* nothing remains to be said after the attention which we have given above to the forms with a short vowel.

But in the *optative* of the active we have to discuss the twofold character of the forms. By the side of the optative forms which add the mood-sign ι on to the sigmatic stem, just like those of the present and thematic aorist stems (δείξα-ι-μι, δείξα-ι-ς, δείξα-ι 3 plur. δείξα-ιεν) we find from Homer onwards a second method of formation, of which only three personal forms are in use: 2 sing. -ε-ια-ς, 3 sing. -ε-ιε, 3 plur. -ε-ιαν. Hence here in the first and third of the forms quoted the original *a* of the mood-element *ja* has been preserved, but in all three the *a* at the end of the stem has been weakened into ε. The former phenomenon finds its complete analogy in the Elean ἀπο-τίνο-ια-ν quoted on p. 328. The second, the weakening of the diphthong αι before a vowel into ει, is based upon the influence which the ι exerted upon the preceding vowel. In precisely the same way we have Μουσε-ῖο-ν for *Μουσα-ῖο-ν, Πυθαγόρε-ιο-ς for *Πυθαγόρα-ιο-ς with various fluctuations discussed by Lobeck ad Phryn. p. 371, μεσόγεια e.g. Thuc. i. 120 by the side of μεσόγαια. In the last instance, however, as well as in γείτων (cp. γηΐτη-ς) the long *a* has perhaps become ε through the intermediate stage η. With regard to the frequency of the two methods of forming the aorist in the optative La Roche in the Ztschr. f. d. österr. Gymn. 1874 p. 418 ff. has made careful collections. The following facts will suffice 268
here. In the 2 and 3 sing. the form with ει is preferred, in the 3 plur. much preferred to that with αι. In Homer according to my collections the 2 sing. occurs 16 times, 13 times in the form -ειας (πέμψειας ι 350, τελέσειας ο 195, μείνειας Γ 52) and 3 times in -αις (ἐπακούσαις Υ 250, ἀντιβολήσαις δ 547, ὀρίναις Λ 792): of the 3 sing. there are about 90 instances, and of these only 8 in -αι (ἀναΐξειε Γ 216, ἐλάσειε λ 290, ὀλέσειε Θ 358, παύσειεν Α 192—γηθήσαι Α 255, ἀκούσαι Η 129). The 3 plur. has always, i.e. 26 times, -ειαν (ἀκούσειαν Β 98, ἄρξειαν Δ 335, τίσειαν Λ 42) with the one exception of Ω 38, where two optative forms occur side by side.

ἐν πυρὶ κήαιεν καὶ ἐπὶ κτέρεα κτερίσαιεν.

In the post-Homeric literature the forms with αι can be shown to be the rarer. Herodotus, according to Bredow de dial. Herod. p. 336, has only the forms with ει, with the exception of three instances of the third person plural in -αιεν (thus διαφυλάξαιεν vi. 101) which form Stein too leaves unimpeached. We may further quote δικάσαις Arist. Vesp. 726, ἐκπνεύσαι Thuc. ii. 84, and the like commonly in later writers. κτίσαιεν

Pind. Ol. vii. 42.—The forms with *ει* are held by the ancient grammarians to be Aeolic (cp. Ahrens Aeol. 148). The main passage on the subject is in Choeroboscus p. 778 s. ed. Gaisford (cp. Herodian ed. Lentz ii. 823): *δεῖ δὲ γινώσκειν ὅτι τὰ εὐκτικὰ τοῦ ἁ ἀορίστου ἐνεργητικοῦ οἱ Αἰολεῖς διὰ τοῦ ει α προφέρονται, οἷον τύψαιμι τύψει, ὑποστρέψαιμι, ὑποστρέψει. Καὶ τῷ ἁ προσώπῳ οἱ Αἰολεῖς μόνοι κέχρηνται, τῷ δὲ δευτέρῳ καὶ τρίτῳ καὶ οἱ Ἀθηναῖοι, οἷον τύψειας, τύψειε καὶ τύψειαν τὸ γ' τῶν πληθυντικῶν.* We cannot adduce any of these forms from the fragments of the Aeolic poets. On the contrary there is in Alcaeus p. 82 Be.[3] *ἀκούσαις*, though there is not much support for this, owing to the incompleteness of the verse.—The Aeolic 3 plur. *εἴπαισαν* quoted by Phavorinus is regarded by Ahrens Aeol. 210 as Boeotian, for the Boeotians in other cases were fond of the forms in *-σαν* (*ἐμάθοσαν* and the like). The similarly formed Delphic *παρέχοισαν* was mentioned above p. 332.

With regard to these forms we have still to mention two irregularities. In Choeroboscus p. 565 we read *οὐδὲ γὰρ λέγουσι (οἱ Αἰολεῖς)*
269 *τυψείαμεν ἀλλὰ τύψειμεν.* Ahrens Dor. 512 regards this form as correctly recorded, assuming the existence of a quite unheard-of **τυψείαμεν* and deriving *τύψειμεν* from it by contraction. But the connexion of the passage requires only a trisyllabic form, and as nothing is heard of an *ει* in these aorists elsewhere than before vowels, I conjecture that we should read *τύψαιμεν*. For the grammarian is only concerned with the fact that the final *α* of the 1 sing. does not extend to the 1 plur.—Savelsberg Ztschr. xvi. p. 413 ff. believes that he can prove the existence in different dialects of third persons singular in *-ει* instead of *-ειε*. Such a contraction (cp. above p. 320 *κεῖται* for *κείεται* as conj.) would not be very surprising in itself. But the authority is very uncertain. Such a 3 sing. opt. in *-σει* is actually written only in the Tegean inscription l. 6 *εἰ δὲ πόλεμος διακωλύσει τι τῶν ἔργων ἢ τῶν ἠργασμένων τι φθέραι.* Bergk takes the form as a future: certainly the optative suits better on the ground of neatness: but Michaelis and Gelbke (Stud. ii. 39) write it *διακωλύσειε*, supposing a slight inadvertence. The case is just the same with the Tean inscription C. I. G. 3044, where is A[ΠΟΚ]ΤΕΝΕΙ, which Boeckh writes *ἀποκτείνειε*. Savelsberg reads *ἀποκτείνει* as an optative. In the Homeric passages we may almost always either admit the future (P 515) or get out of the difficulty by means of the apostrophe (λ 585 *ὁσσάκι γὰρ κύψει' ὁ γέρων*). For the few remaining instances it is not very bold to write *αι* (thus T 81), especially as at least in some of these passages (χ 98) there are not wanting traces of this reading in the M.SS.

Only forms in *αι* are recorded as Doric: *ἐπιορκήσαιμι*, *ποιήσαι* and the like (Ahrens 335).

The *middle optative* and the *participle* present no peculiarities, nor does the middle *infinitive*: the active was discussed on p. 448.

2) The interior of the stem.

By the meeting of the consonant ending the verbal stem with the appended *σ* there arises a collision of consonants of various kinds, the settlement of which results as a rule from phonetic laws and hence needs no discussion. We may here just point out that several heavy groups
270 of consonants were not at all avoided in this place, e.g. *ἔκλαγξαν* (A 46),

λίγξε (Δ 125), ἐλέγξῃς (I 522), ἐπέλαμψε (P 650), πέμψε (Σ 240), ἔρξα (rt. ϝεργ—χ 312), εἶρξα and εἷρξα (Attic), ἔθελξε (O 322).

There are only two kinds of stems which form an exception, inasmuch as in these more extensive changes and irregularities occur, viz. the stems of the verbs which in the present end in -ζω, and those in λ μ ν ρ. We will deal first with the former, and in doing so will not separate the aorist from the future, which in this respect quite corresponds to it. The simple rule, which might be supposed to be the only one adapted to the structure of the language, that the dental stem in the sigmatic tenses gives σσ or a simple σ, the guttural ξ, is not observed in the case of the verbs which in the present end in -ζω. In root-verbs, it is true, we shall as a rule, and especially for the Ionic dialect in the widest sense, regard a σσ or σ in these tenses as the criterion of a final dental in the stem, a ξ as the criterion of a guttural, as has been done in the survey of them on p. 222 ff.: σχίζω (ἔσχισα), στίζω (στίξω), and this criterion is almost always confirmed by other evidence from the formation of nouns and verbs (σχίδη—στιγμή). But in the case of derived verbs in -αζω and -ιζω nothing warrants us in regarding those in which ξ appears in the aorist and future as in their formation essentially different from those which show σ. It is the same δικάζω from which the Doric δικαξάμενος comes and the Attic δικασάμενος; and no one will desire for the language of Homer, in which, in the case of two verbs, by the side of the forms with ξ (ἁρπάξων X 310, ἥρπαξε M 305, ἐφαρπάξαι N 189, ἁρπάξας Γ 444—κτερεΐξω β 222, κτερεΐξαι α 291) we find rarer forms with σ (ἀνήρπασε I 564, ἥρπασε N 528, κτεριῶ Σ 334, κτεριοῦσι Λ 455, κτερίσειε γ 285) to assume two stems for the same word. We must say rather that from the time of Homer onwards a twofold method of formation has established itself. The relation of the dialects is broadly this: Doric has as a rule ξ, Ionic as a rule σ; but the Homeric dialect fluctuates. As to the Aeolic nothing positive can be said owing to the deficiency of information.

The question now is, can this tolerably extensive difference in the formation of much-used tenses be explained, or must we be satisfied with accepting it as a fact? Two attempts at explanation have been made as yet. The one, adopted by me in Princ. ii. 247 f. after H. L. Ahrens, endeavours to explain the ξ from the incorporation of the *j* originally belonging to the present stem. δικάζω is for δικαδ*j*ω, and this, as I think I have shown, is for δικά*j*ω. The type ἐδίκαξα according to this view arose at a time in which the palatal spirant still remained pure, the type ἐδίκασσα (later ἐδίκασα) at a time when the δ had already made its way in. The former formation would thus be the earlier, and hence there are still numerous traces of it in Homer, the second the later. The other explanation is that from analogy. This is developed and supported most clearly by Cauer in the Sprachw. Abhandl. p. 127 ff. According to this view the historical process was somewhat as follows. There were from very early times radical presents in ζω with the future in ξω and others with the future in σω, and also certain derived verbs in -ζω (e.g. ἁρπάζω), whose stem originally ended in a guttural (ἁρπαγ-ή). In determining the form of the derived verbs, which as a rule were later, language became confused, and did not keep the two types rigidly distinct. Hence on the analogy of στάζω ἔσταξα, ἁρπάζω ἥρπαξα was formed also ἀβροτάξομεν (K 65), on the analogy of στίζω στίξω πολεμίξομεν (Ω 667). In the Principles [ii. 271

248][5] I uttered a warning against the assumption of formation on analogy, and demanded from those scholars who inclined to it the proof of definite verbal forms from which the analogy was drawn. This latter demand is now partially satisfied by Cauer's investigation: whether quite satisfactorily or not remains to be seen. First we must take a somewhat more exact survey of the facts given.

In Homer there are more than 50 presents in *-ζω* with a dental future and aorist formation, and 28 with *ξ*. The various needs and conveniences of the verse are satisfied in the case of the former group by the interchange between the archaic *σσ* and the later *σ*: e.g. *ξεινίσσομεν* *η* 190, *ξείνισ'* Z 217, *πελάσσαι* Ψ 719, *πέλασαν* Α 434, *κόμισσα* Λ 738, *κόμισεν* Ξ 456. The choice between *ξ* and *σσ* has therefore nothing
272 whatever to do with the convenience of forming the verse, in which many scholars so readily find the occasion for irregularities. Among the 28 instances of the second group there are 8 radical verbs, for which we must lay down a guttural stem, viz. the three mimetic verbs *κλάζω*, *λίζω* (*λίγξε* Δ 125), *μύζω*, and also *ἐλελίζω* shake (cp. p. 226) *πλάζω*, *ῥέζω*, *στάζω* and *σφάζω*. There are further 7 derived verbs, for which Cauer's derivation from a stem-noun in *γ* for an earlier *κ* has some probability: *ἁρπάζω* (*ἁρπαγή*: cp. Lat. *rapax*), *μαστίζω* (cp. *μάστιξ*), *ἐλελίζεσθαι* to turn (cp. *ἕλιξ*, *ἑλίσσω*), *σαλπίζω* (cp. *σάλπιγξ*), *στηρίζω* (cp. *στῆριγξ*), perhaps also *ἀλαπάζω*, if we derive it with Fick i.[3] 24 from the stem of the Sanskrit *alpaka-s* weak, *ὀλολύζω* (cp. *ὀλολυγή*) which is possibly connected with *μαρμαρύσσω* *μαρμαρυγή* and the Sanskrit formations in *ūka* mentioned on p. 257. In the case of *οἰμώζειν* and *ἰύζειν* we might certainly explain the forms with *ξ* from the analogy of the simple mimetic verbs. There still remain then 11 instances unexplained. *ἐξεναρίζω*, *πολεμίζω* come from the stems *ἐναρο*, *πολεμο* in the same way as *ὁπλίζω*, *ξεινίζω* from *ὁπλο*, *ξεινο*, and yet the former make *ἐξεναρίξει* Υ 339, *πολεμίξομεν* Ω 667, Β 328, the latter *ἐφοπλίσσωσι* *ω* 360, *ξείνισ'* Z 217. The remaining words are *ἀβροτάζω*, *ἀποβρίζω* (*ἀποβρίξαντες* *ι* 151, *μ* 7), *δαΐζω*, *δνοπαλίζω*, *ἐγγυαλίζω*, *κτερείζω*, *μερμηρίζω*, *πελεμίζω*, *στυφελίζω*. *ἀποβρίζειν*, which Cauer quotes without proof as a primitive stem-verb, is possibly connected with *βριθύ-ς* and *βαρύ-ς* (Princ. ii. 77), but in any case the guttural stem is not proved etymologically. These 11 instances must according to Cauer have followed the analogy of the former 17. Certainly the resemblance of the 11 to the 17 is not particularly striking. It would be conceivable that even among the 11 there were some verbs in which the guttural had its source in a word-forming suffix just as in *μαστίζω* and *σαλπίζω* and in *φορμίζω*, which in Homer only occurs in the present stem.

What appears in the language of Homer as an exception, though a tolerably wide-spread one, in Doric has become the rule. The Heraclean tables give us the following instances (Meister Stud. iv. 427 f.): *ἀγχωρίξαντες*, *ἐγδικαξαμένοι*, *δοκιμαξόντι*, *ἐργαξόνται*, *ἐμερίξαν*, *ἐτερμάξαν*, *κατεσώξαμες* (as well as *κατεσώσαμες* i. 47, 51), *ἐρίξαντες*, *ὠριξαν*. It is unnecessary to reproduce all the other examples collected by Ahrens Dor.89 f.
273 It is sufficient to point out that the most different Doric districts, viz. Laconia, Crete, Southern Italy, Corcyra, Rhodes and Thera agree in this. The *ξ* is least established from the region of the northern Doric. The

[5] [The discussion of this question in the present work is now (Grundzüge[5]: 1879) substituted for that in earlier editions of the Principles.]

Delphic inscriptions published by Wescher and Foucart have in no. 154 *νυσφίξαιντο*, but in no 3, 8 *ἠγωνίσαντο*. We find *ἀγωνίσσατο* on the by no means pure Doric inscription I in Jahn-Michaelis Bilderchroniken p. 84. The Locrian inscription of Naupactus gives us reason by the form *ψάφιξις* to conjecture that *ἐψαφίξατο* also was said in that district. On the Messenian inscription of Andania we read l. 2 *ὀρκιξάτω* and l. 36 *χωραξάτω* from the otherwise unauthenticated *χωράζειν*, which Sauppe is probably right in translating 'set up,' but l. 4 *ἐξορκίσειν*. The Cretan forms of the kind are collected in Helbig de dial. Cret. p. 20. We may quote *ἐμφανιξάντων*, *ἐννυβρίξῃς*, *πειράξομεν*, *συναγωνιξαμένων*, *χαριξίομεθα*. —The Aeolic dialects differ widely from each other. The Boeotians instead of the *σσ* which arises out of the combination of the dental with the second *σ* said *ττ*. That is to say, where the *σ* came in contact with the explosive sound hardened to *τ*, they allowed the latter to prevail. So Ahrens Aeol. 177 explained the *κατασκενάττῃ*, i.e. *κατασκενάσαι* of an inscription, and the reading of the Ravenna M.S. in the Boeotian passage in Aristoph. Ach. 884 *κἠπιχάριτται τῷ ξένῳ*, where the *αι* in the place of the true Boeotian *η* is due to the Attic writers. Since then we have recently acquired the form *καταδουλίττασθαι*[6] i.e. *καταδουλίσασθαι* on an inscription from Orchomenus published by Decharme in the Archive des missions scientifiques for 1868, and *κομιττάμενοι* Athenaion iii. 482.—In Asiatic Aeolic we find instead of this *ττ* the *σσ* familiar from Homer in the inscription from Erythrae published by Kenner in the Sitzungsber. der Wiener Akad. 1872 p. 335, l. 55 *χαρίσσυνται*, on one of those published by Conze (Reise auf Lesbos) *δικάσσω*, but also *διαρπάξαις*. The decree of Tenedos (Philol. xxv. 191) has the forms *ἐψαφίσατο* and *ἐδίκασε*.—On the other hand we read on the inscription from Tegea l. 5 and 28 *παρετάξωνσι* from *παρετάζω* (Gelbke Stud. ii. 38), and the Arcadian dialect here agrees with the Cyprian, as it often does. For 274
the inscription from Idalium twice gives (Stud. vii. 252) the conjunctive *ἐξορύξῃ*[7] i.e. *ἐξορίξῃ* or in Attic *ἐξορίσῃ*, where the *υ* is perhaps to be explained from the primitive form *ὀρ϶ίζω* (in inscriptions *ὄρ϶ος* and *ὄρβος*). This confirms my conjecture (Stud. vi. 372) that the gloss in Hesychius *ὔξον· βοήθησον* is Cyprian and identical with the Laconian *σοῖξον* (cp. Heracl. *σωΐξαι*), the rough breathing taking the place of *σ*.[8]

Now that we have thus ascertained the facts of the case, I must confess that I cannot find any decisive argument against the explanation of this surprising *ξ* which I previously gave after Ahrens. The *j*, which was originally pronounced before the thematic vowel of the present, might as a palatal spirant easily harden into an explosive sound before *σ*, and this with the *σ* produced *ξ*, precisely as in modern Greek the verbs in *-εύω*, i.e. *evo* form their future in *-ευσω*, i.e. *epso*. For the fact that *j* even between vowels was not far removed from the *γ* proofs have been brought forward in the Principles l. c.; among these the most remarkable are the Heraclean forms *ποτικλαίγωσα*=*προσκλείουσα* tab. ii. 69, *ποτικλαῖγον*=*προσκλεῖον* ii. 107, brought into this connexion by Meister.

[6] The editor did not understand the form. He accentuates it *καταδουλιττᾶσθαι*.

[7] Ahrens however now gives a quite different explanation of this word.

[8] We may place here also the curious form *ἐξώλιγξε· ὥλισθεν* Hesych., which may possibly be taken as an aorist to a present **ὀλίζω* as a byform of *ὀλισθάνω*. Cp. *πελίγξαι· ἐπιδραμεῖν*. *σωλίγξαι·* (?) *δραμεῖν*.

Although I have no objection on principle to admit the operation of analogy in such cases, still the facts are, I believe, more easily explained by assuming from the earliest times two ways of treating the *j*. This naturally does not exclude the notion that such Doric forms, in part only making their appearance at a late date, as are unmistakeably based upon a dental stem, e.g. *καθίζω* (rt. *ἑδ*, fut. *καθιξεῖ* in Bion ii. 16, *καθίξας* Theocr. i. 12[9]), *παίζω* (rt. *παιδ*, fut. *παιξοῦνται* Laconian in Xenophon Conv. 9, 2 and often in later writers, cp. *παίγνιον*), really owe their *ξ* first to the analogy of the other forms which were established earlier.
275 This has already been shown in Cauer p. 143 f. The converse change is also explained there. It cannot be denied that the analogy of the countless verbs with *ζ* in the present and *σ* in the sigmatic tenses according to the usage of Attic Ionic, suppressed certain fully justified formations with *ξ*, and put in their place the more common forms with *σ*. A beginning had been made here by the Homeric *ἥρπασε* side by side with *ἁρπάξαι*, already mentioned. Homer gives from *μύζω ἐπέμυξαν* (Δ 20, Θ 457) for which we must assume a root *μυγ*. The same may be said of *σκάζω, σαλπίζω, στηρίζω, συρίζω*.

The liquids *ρ* and *λ* do not agree well with a following *σ*, the nasals still worse. As a rule the sibilant has disappeared here in consequence of progressive assimilation. Still there are some instances of the full form, all from stems ending in *ρ* or *λ*. No stem which preserves a final nasal before *σ* is known to me. For *κένσαι* Ψ 337, like *ἔπερσε* α 2 and *ἄμερσε* θ 64, has lost a dental explosive before the *σ*, and therefore remains unchanged. We may conjecture that the sound of the *σ* here was sharper. From **ἔσπενδ-σα* came first, we may be sure, **ἔσπεν-σα*, but even in Homer we have the still more softened *ἔσπεισα* (*ν* 55). A special place is taken by *τέρσειν* dry, imper. aor. *τέρσαι* Nicand. Ther. 693 because the *σ* of the root coalesces with the *σ* which forms the stem. The case is different with the following forms:

ἀέρσῃ Panyasis in Athen. ii. 35, v. 14.

μή σ' ὗβρις ἐνὶ φρεσὶ θυμὸν ἀέρσῃ.

ἄρσαι from rt. *αρ* fit: *ἐπῆρσεν* Ξ 167, 339, *ἄρσε φ* 45, *ἄρσον β* 289, 353, *ἄρσαντες* Α 136, *ἀρσάμενος* Hesiod. Scut. 320.

ἔλσαν[1] Λ 413, inf. *ἔλσαι* Α 409, Φ 225, *ἐέλσαι* Φ 295, *ἔλσας η* 250, Callinus fr. 1, 11, *ἔλσαις* (partic.) Pind. Ol. x. 43.

ἀπό-ερσε Ζ 348, *ἀπο-έρσῃ* Φ 283, *ἀπο-έρσειε* Φ 329

ὀι-έρσῃς from *εἴρειν* string, fasten properly, is used in Hippocr.

θερσόμενος τ 507.

276 *ἐκέλσαμεν μ* 5, *ἐπ-έκελσεν ν* 114, *κελσάσησι ι* 149. Here the *σ* remained even in the tragedians (Soph. Fr. 804), and in the future *κέλσω* too, while the nearly akin *ὀκέλλω* has *ὤκειλα*.

ἔκερσεν N 546, *κέρσε* Κ 456, Hes. Scut. 419, *κέρσειε* Aesch. Suppl. 665, *κερσάμενος* Pers. 952, opt. fut. *κέρσοι* Mosch. ii. 32 (?).

κύρσας Γ 23, Ψ 428, also in Hesiod. Theog. 198 (*προσέκυρσε*), Herodotus (*ἐνέκυρσε* iii. 77) and the tragedians (*κύρσω* Soph. O. C. 235).

ὄρσομεν Δ 16, *ὄρσωμεν* Η 38, *ὄρσητε* Ψ 210, also in Hesiod, Pindar, and the tragedians (*ὄρσω* Soph. Antig. 1060).

[9] Also *κάθιξον· κάθισον* Hesych.

[1] We may mention here also *ἥλσατο*, said to be for *ἠλάσατο* in Ibycus fr. 54, and *ἠλσάμην* in Simon. Amorg. 17 in a verse not yet fully explained.

ἔστελσεν· ἔστειλεν Hesych.

ἔφερσεν· ἐκύησεν, quite analogous to the Skt. *a-bhārshà-m* from the root *bhar*, which in the most different languages serves to denote bringing forth and pregnancy. Cf. Princ. i. 373.

δια-φθέρσει N 625, *φθέρσαντες* Lycophron 1003.

φύρσω σ 21, *φυρσάμενος* Nicand. Ther. 507.

There are altogether only 14 forms, 11 with ρ, 3 with λ before the σ. From these we come next to those with the final letter of the root doubled. For these the form ἐτέρρατο· ἐξηράνθη is instructive, the σ here, in spite of its power of resistance noticed above, having fallen a victim to the process of assimilation. Among the instances of the retention of the doubled consonant the solitary Homeric ὀφέλλειεν Π 651, β 334 is of especial importance. Asiatic Aeolic gives us more of the same kind (Ahrens Aeol. 50). We have the evidence of inscriptions for ἀπέστελλαν, now found also in the inscription from Erythrae, (Kenner u. s. p. 335), ἐπαγγελλαμένων, and ἔκριννε in the Lesbian inscriptions edited by Conze. The remaining forms rest upon the statements of the grammarians. Cp. Herodian ed. Lentz ii. 306, 33. So ἐγέννατο, σπελλάμεναι· στειλάμεναι Hesych., ἐνέμματο, κτέννει, imp. aor. ἔρρον, 3 sing. ὀρράτω, according to the probable reading of Ahrens (Herodian ed. Lentz ii. 503, 13). How single consonants came from these double ones, with the compensatory lengthening differently regulated in different dialects, needs no further explanation. Doric forms like the Cretan παραγγήλωντι (C. I. G. 2556, 43), ἀποστηλάντων (Naber Mnemos. i. 114 ff. l. 1), πεδ-ιᾶλαι· μεταπέμψασθαι Hesych. have not been very commonly preserved. It is worth while noticing the form φθέραι=φθείραι on the inscription from Tegea (Gelbke Stud. ii. 38), 277
where the double ρ has passed into the single ρ without any compensatory lengthening.

To the great regularity, with which the laws of compensatory lengthening are observed in the Attic-Ionic dialect from Homer onwards, as is shown by numerous instances like ἤγειρα, ἤειρα, ἔδειρα, ἐκάθηρα, ἤλατο, ἴηλα, ἔστειλε, φῖλαι, ἔδειμα, ἔγημα, ἐνειμα, ἀπέκτεινα, ἐγείνατο, ἀρτύνας, ἴηνα, ἐκλίνατο, the occasional variations in the treatment of *a* before *ν* and *ρ* form a remarkable exception. In Homer perhaps the only word belonging here is ἀγξηράνῃ Φ 347, which savours of Atticism, as distinguished from μιήνῃ Δ 141. In Attic writers we are less surprised at the preservation of the ᾱ after ι and ρ (περᾶνας, ἐπιᾶνα), since this takes its place in a more extensive series of analogies, than at the occurrence of forms in which the ᾱ appears after other consonants. We have good evidence for ἰσχνάνασ'Aesch. Eum. 267—cp. Aristoph. Ran. 941, ἐκέρδανα Soph. fr. 499 Dind., Andoc. i. 134, Dem. ix. 29, ἐκοίλαναν Thuc. iv. 100, ὀργάνειας Soph. O. R. 335, πεπᾶναι Aristoph. Vesp. 646 chor. Lobeck ad Phryn. 25, Paralipp. 21 sqq. has already expressed the view that it is but useless trouble to attempt to find any definite reasons for this inconsistency. Only one thing is certain, that the later writers evidently incline more to the ᾱ in consequence of the popular language, which here and there Dorised. Perhaps also σημᾶναι in Xenophon—though this form is disputed—is to be set down to the score of the many different deviations of this πολύτροπος from genuine Attic. The retention of the ᾱ must have been favoured by the analogy of the numerous other forms in which there was always *a*.

We come now to the treatment of the σ in stems ending in a vowel. The regular forms with the σ retained, are here really the most difficult. In view of the tendency of the Greeks to allow a σ between two vowels to pass into an aspirate, the retention of the sibilant in the same position in the case of the aorist is surprising. For the cases cannot be numerous in which a σ which is not weakened from τ (φησί) or σσ (ὄρεσι) remains unchanged in such a position. I have called attention to this fact, which has hitherto been too little noticed, in my essay 'Ueber die Tragweite
278 der Lautgesetze' (Ber. d. k. Sächs. Ges. d. Wissensch. 1870) p. 24 f. and have there quoted the parallel between the σ of the aorists and that of the 3 pl. -σαν in ἔ-δο-σαν, ἔ-φα-σαν. The occasional preservation of the σ in second persons like δύνασαι, ἠπίστασο is not quite comparable, for the original ending here contained a ϝ as well as σ. So too in the 3 plur. of those primitive past tenses, as in that of the pluperfects discussed on p. 430 f., no reason presents itself for deducing an original double consonant. I think I can find the reason for this anomaly in the history of sounds in the endeavour after perspicuity. The tendency to more convenient intonation was not operative here, because its satisfaction would have led to harsh and obscure forms like *ἔδοαν, *ἴαν, *ἐδούλωα, *ἔστηα. But I think that I have now discovered another reason in the case of the sigmatic aorists, viz. the action of the other sigmatic aorist forms and the sigmatic future. Aorists like ἔπραξα, ἔγραψα, ἤλπισα from consonantal stems were common enough to stamp the sound of σ for the instinct of the language as one distinctive of this tense-formation. Besides, the similarity between the sigmatic aorists and the futures must have become evident at an early date, so that the two tense-systems, one of them revolving about the stem γραψα, the other round γραψ, must have been felt to be parallel. But in the future the σ, arising from σϳ, was of a more fixed character, which secured its preservation even between vowels. I think we may assert that the parallelism between the future and the aorist here exerted a preservative influence.

The change of the σ into an aspirate is even in the Laconian dialect, to which it was quite especially peculiar, a phenomenon of later origin in aorist forms. In the Et. Magn. 391, 20, forms like ποιῆαι are mentioned. We find now νεικάαρ i.e. νικήσας and νεικάαντερ=νικήσαντες on inscriptions (Hermes iii. 449 f.). The chorus of the Laconians in Aristoph. Lys. 1247 begins with ὄρμαον i.e ὄρμησον. Also from the Cyprian glosses of Hesychius Mor. Schmidt Ztschr. ix. 367 establishes the same change. We may regard as certain: ἔνανὸν· ἔνθες Κύπριοι, cp. ἐξαῦσαι· ἐξελεῖν, ἰ-μίτρα-όν· ὑπόζωσον Πάφιοι, ἰμπάταὸν· ἔμβλεψον, ἰνκαταπάταὸν· ἐγκατάβλεψον, ἴμαὸν· πάταξον, σίαἰ· πτύσαι Πάφιοι. In
279 the newly decyphered Cyprian texts no trace of this process has as yet appeared.

It is more difficult to investigate the aorists with a characteristic α, which have no σ. These extend over the most various Greek dialects. Five of them form a distinct group, a υ or ϝ having preceded the σ in all. I quote first the forms coming into consideration.

ἀλεύατο Γ 360 etc., ἠλεύατο Ν 184 etc., ἀλεύεται conj. ξ 400, ἀλέηται δ 396, ἀλέαιτο Υ 147, ἄλευαι Χ 285, pl. ἀλέασθε δ 774, ἀλεύασθαι μ 159, 269, Hes. Opp. 798, ἀλέασθαι Ν 436 etc., ἀλευάμενος Ε 444 etc. From the active we find also the regular forms ἄλευσον Aesch. Sept. 141, Suppl. 528, ἀλεύσατε Sept. 86.

δατέασθαι only Hes. Opp. 767 (?)

ἔκηα A 40, κατέκηε Z 418, conj. κήομεν Η 377, opt. κήαιεν Ω 38, imp. κῆον φ 176, inf. κακκῆαι λ 74, κήαντες ι 231, κήαντο Ι 88, κηάμενοι Ι 234. There are also κέας Aesch. Ag. 849, Soph. El. 757, ἐκκέας Aristoph. Pax 1132 (chor.), as well as ἔκανσα Herod. viii. 33, κατέκανσαν Thuc. vii. 25, καῦσαι Pl.

ἔσσευα Ε 208, σεῦα Υ 189, ἔσσευε Υ 325, ἐπέσσευε σ 256, σεῦαν ζ 89, ἐσσεύαντο Λ 549 ; ἔσσευσα is quoted only from Anth.vii.439 (ἐπισσεύσασα).

ἔχευαν Γ 270, Δ 269, χεῦαν Ξ 436, χεύωσι Η 86, χευάτω Alcaeus fr. 36, 3 Be.[3], χεύαντων δ 214, χεῦαι inf. λ 75—with ἔχεαν Σ 347, and the same form in Attic comic writers, conj. χέῃ Eur. Cycl. 329, ἐγχέαιμι Aristoph. Ach. 1055, ἐγχέαντος Plato Conv. 214 inf. συγχέαι Isae. v. 18, διαχέαι Herod. viii. 57, ἀμφιχέαι Hes. Opp. 65, χέασθαι Soph. O. C. 477.—χεύσας Metrodorus Anth. xiv. 124, 8. Tolerably numerous traces of these sigmatic forms from various M.SS. of Homer (e.g. α 291, β 354) are pointed out by La Roche Homer. Unters. 270. They evidently prove nothing but the uncertainty of the copyists.

These five forms have been frequently explained by the assumption that σ has dropt out between the two vowels. But it is by no means probable that the dialects, which e.g. in ἔκλαυσα, ἔπλευσα and the numerous derived verbs in ευω e.g. in ἐβασίλευσα left the σ unchanged, rejected the same sound under precisely the same conditions from these 280
few. It might have occurred to us that the σ disappeared, not after υ, but after the ϝ which is closely connected with it, and that the process was :

ἔ-χεϝ-σα ἔ-χεϝϝα ἔχευα ἔχεα

so that the ϝ like the liquids and the nasals assimilated to itself the following σ, and then in some cases continued to exist as υ, in others dropt out altogether. But then we cannot understand how the ϝ, which in similar forms is wont to appear only before vowels, got into its place before σ. To make this explanation intelligible we should have to start, not from the roots χυ, συ, but from χεϝ, σεϝ :—and as a matter of fact we cannot get further back than καϝ. But who could make up his mind to assume a root χεϝ for the forms of χέω, while for κέχυται we are guided to χυ? κέχυται and the like would then have to be regarded as shortened, without our being able to see any reason for the shortening. Hence the purely phonetic explanation evidently has its special difficulties. I believe therefore that we cannot get beyond forms like *ἔκαϝ-α, *ἔχεϝ-α, *ἔσσεϝ-α etc. The η in ἔκηα may well be taken as compensatory lengthening. Where in Homer we find ει written instead, κείαντες and the like, the more recent editors have for the most part rightly restored the η (cp. La Roche Homer. Unters. p. 159), which is the only form justified as a compensatory lengthening of α. A noteworthy parallel to ἔκηα is furnished by the Boeot. σεῖα. The gloss of Hesychius σεῖα· ἐδίωξα Βοιωτοί is certainly not to be tampered with, for a Boeotian ει represents an Attic η. Hence we have before us the same formation as in κῆα, ἔκηα. As the absence of the augment points to a poet, perhaps Corinna is the source of this gloss. On these considerations we must therefore decide that these five[2] aorists, among which δατέασθαι has

[2] Joh. Schmidt Vocal. ii. 331 thinks he can add a sixth : ἐ-πριά-μην, which he derives from *ἐ-πρι-σά-μην for an earlier *ἐ-περ-σά-μην, regarding it as a sigmatic

281 absolutely no by-form with *ϝ* or *ν*, rest upon a different analogy. We shall come back to them in speaking of *εἶπα*, *ἤνεγκα* and the like. We may just mention here that the aorist without the *σ* *ἔχενα* *ἔχεα* is accompanied also by a future without the *σ* *χέω*; and in this case there is still less probability of the loss of a *ν* and of *σϳ*.

The preference for the intensified vowel of the stem is characteristic of the sigmatic aorist as well as the future; and in this respect Sanskrit (Delbrück Verbum 177 ff.) often agrees with Greek. Roots ending in a vowel regularly raise their vowel: *ἔβησα*, *ἔστησα*, *εἵσατο* (E 538), *κλῆισαι*, *οἵσατο* (*ι* 213), *ὑποκύσας*, those ending in a consonant generally follow the present: *ἔρρηξε* Γ 348, *ἔπληξα*, *κατέτηξε τ* 206, *ἔδειξα*, *ἤλειψαν* Σ 350, *ἐείσαο* I 645 (from *εἴδομαι*), *ἤρειψα* (Herodot. Pind.), *λεῖψαι* from *λείβω* (H 481), *πεῖσαι*, *κατέστειψας* Soph. O. C. 467—*ζεῦξαι*, *ἔτευξεν* Ξ 338, *ἐπικεύσῃς o* 263. The exceptions from vocalic stems are discussed below: there are hardly any to be found from consonantal stems. I may mention *λάξασθαι· κληρώσασθαι* Hesych., by the side of which we have the Herodotean future *λάξομαι* (vii. 144), just as there is beside *λέληγμαι* a by-form *λέλαγμαι*, though a late one, and beside *λῆξις* *λάξις*. The remark of Uhlɔ 'Sprachw. Abhandl.' p. 63 holds good here: 'the intensification attaches to the root.' Even more than in the case of the perfect the influence of the present makes itself felt in the sigmatic tense-forms.

C) Irregularities.

The sigmatic aorist shows a few phenomena which deviate from the prevalent laws of formation; the first two of these are to a certain extent opposed to each other, but unite on the point that the two aorists, distinguished by the grammarians by means of different numbers, in spite of their great difference, sometimes coalesce. Buttmann i.[2] 404 ff. says to the same effect, 'the terminations of the 2 aor. were in some unformed dialects interchanged with those of the 1 aor.' and note 10 'in the same way the converse is sometimes found to be the case.' Buttmann explains the fact by saying that 'the aorist forms in *ον* and *α* 282 originally differ only as dialects.' 'The ancient language formed the aorist sometimes with, sometimes without *σ*, and as regards the terminations, sometimes in *ον* etc., sometimes in *α* etc. The usage of the language settled upon the terminations *σα* and *ον* except in verbs in *λ μ ν ρ*, but retained remains of the formations in *α* and *σον*.' Apart from the obscure phrase 'dialects' [Mundarten]—for no dialectical difference can be demonstrated—this view seems to me thoroughly well established. The question is one of a crossing of the different analogies. It is remarkable here that the appearance of the vowels *ο* and *ε*, which as a rule are so much the more common, in place of the regular *α* belongs to the earlier period, but the extension of the heavier and rarer *α*, in place of the ordinary thematic vowel, to the later. But the riddle is solved simply by the fact that in the post-Attic period the so-called first aorists with their *α* were almost the only ones in ordinary use; and that for this reason they drew the archaic forms of the so-called second aorists over to follow their analogy.

aorist of *πέρνημι*. But —to say nothing of other difficulties—the imperative of *ἐπριάμην* is, as every one knows, *πρίασο*: if Joh. Schmidt were right it would have to be **πρίαι*. Hence I adhere to the view stated on p. 120.

We begin with the former and more easily intelligible case:

a) Sigmatic aorists with the vowels ε and o for α.

In view of the extraordinary number of forms which make use of this interchange between the *e* and the *o*, the extension of this phenomenon, and its penetration into the sphere of the old *α*, which is much less common as the vowel of inflexion, cannot at all surprise us. In the case of the perfect we met with processes quite corresponding on p. 393 ff. If we were right in what we said on p. 442 ff. about the origin of the sigmatic aorist, and in our conjecture as to a presumable 'primarium,' the shifting of the vowel becomes still more intelligible. A form like λέξεο is to a certain extent the natural imperative form from a *λέξομαι, which we might doubtless expect on the analogy of ἀλέξομαι. Hence the old grammarians were in a certain sense right in taking βήσετο, δύσετο as imperfects from βήσομαι, δύσομαι (Schol. A. on A 496). But they were wrong in identifying these latter forms with the futures spelt in the same way, and in talking of a μετάγειν εἰς ἐνεστῶτα (Herodian i. p. 447).

The following instances, limited for the most part to the Epic 283 language, belong here. In most cases there are also variants with *α*:

1) imper. ἀείσεο Hymn. Homer. xvii. 1.

Κάστορα καὶ Πολυδεύκε' ἀείσεο Μοῦσα λιγεῖα.

2) imper. ἄξετε Γ 105 (ἡ διπλῆ, ὅτι ἀντὶ τοῦ ἄγετε) Ω 778, ξ 414, ἄξεσθε Θ 505. Also ἀξέμεναι· ἐνεγκεῖν, ἄξεσθαι· ἀγαγέσθαι Hesych.

3) imper. καταβήσεο Ε 109, ἐπιβήσεο Ε 221, βήσετο Γ 262, ἐβήσετο ψ 1 (πρός- Β 48, ἀπ- Α 428, κατ- Ζ 288, ἐπ- Θ 44). From the scholium on Γ 262 it appears that Aristarchus preferred these forms, where the meaning was intransitive, without however introducing any changes on that account (οὐ μετατίθησι). In Hymn. in Apoll. i. 141 ἐβήσαο appears as intransitive. Hes. Scut. 338 ἐβήσατο with the v. l. ἐβήσετο.—In the transitive sense νὼ ἀναβησάμενοι is well established at *o* 475.

4) δύσετο Ζ 136, κατεδύσετο Δ 86, ὑπ- ζ 127, ἀν- Α 496. Here too we have the evidence of Didymus on Β 578 that ἡ ἑτέρα τῶν Ἀριστάρχειων had ἐδύσετο, 'καὶ ἔστι χαριεστέρα.'

The participle α 24

οἱ μὲν δυσομένου Ὑπερίονος, οἱ δ' ἀνιόντος

and Hes. Opp. 384 δυσομενάων (Πληιάδων), parallel with ἐπιτελλομενάων, and therefore quite with the force of a present.

5) ἶξεν Β 667, ἶξες Hymn. Hom. ii. 45, ἶξον (3 plur.) Ε 773, Κ 470, Ξ 433.

6) imper. λέξεο Ι 617, τ 598; at κ 320 Aristarchus wrote λέξο ἑταίρων. One M.S. has λέξεο, others λέξαι. For λέξο see above p. 131.

7) imper. οἶσε χ 106, 481, Aristoph. Ran. 482, οἰσέτω Τ 173, θ 255, οἴσετε Γ 103, Ο 718, ν 154, οἰσόντων Antimachus in Athen. xi. p. 468, and also οἰσέμεναι Γ 120 (κέλευεν)=οἰσέμεν γ 429, while the same form in Σ 191 may be a future. An otherwise identical aorist with *α* occurs in ἀνοῖσαι Herod. i. 157 (M.SS. ἀνῷσαι).

8) ὄρσεο Γ 250, ὄρσευ Δ 264. ἔρσεο· διεγείρου (cp. ἔρετο· ὡρμήθη, ἔρσῃ· ὁρμήσῃ) Hesych. differs only dialectically, and must probably be regarded with Mor. Schmidt as Boeotian (cp. Ἐρχομενός).

9) Imper. πελάσσετον Κ 442.

ἀλλ' ἐμὲ μὲν νῦν νησὶ π. ὠκυπόροισιν.

284 10) ἔπεσον common from Homer onwards in all its forms among Ionic and Attic writers in poetry and prose, while the Aeolians and Dorians used the regular thematic aorist ἔπετον noticed on p. 286. ἔπεσον cannot well have arisen out of ἔπετον by phonetic weakening, for it is only before ι (φησί), and sporadically before υ (σύ) that τ passes into σ. ἔπεσον is therefore for *ἐ-πετ-σο-ν and is to ἔπεσα i.e. *ἐ-πετ-σα just as ἐβήσετο is to ἐβήσατο. Thus in this case the formation, which is elsewhere accounted anomalous, has become the rule, while the normal formation has become the exception. Hence we cannot regard

ἔπεσα, as Buttmann Ausf. Gr. ii.[2] 278 rightly saw, as parallel to ἔλαβαν and other Alexandrian forms. M.S traces of the forms belonging here are found in πέσειε Eurip. Alc. 464 Dind. (cp. Kirchhoff), altered into πέσοι, προςέπεσα Eur. Troad. 292, altered into προςέπεσον (cp. Veitch p. 478), ἔπεσαν Herod. i. 21 (only the Aldine), ἐνεπέσαμεν Aeschin. ii. 176. Considering the very frequent occurrence of the other formation it would certainly be rash to regard these as more than the blunders of copyists. Lobeck ad Phryn. 724 quotes forms of the kind from later writers (Sext. Empir., Achill. Tatius, N. Test.).

11) ἔχεσον, quoted by Herodian ii. p. 801 from the Ganymede of the comic poet Alcaeus: κατέχεσον [τῆς] Νηρηΐδος. Cp. Meineke Comici ii. p. 826. Buttmann supports his view of ἔπεσον mainly by this parallel, and in fact: ἔπεσον (i.e. ἔ-πετ-σο-ν) : πεσοῦμαι :: ἔχεσον (i.e. ἔ-χεδ-σο-ν) : χεσοῦμαι. Here there is abundant evidence for forms with α like ἔχεσα, χέσαιμι, χέσαι, and no one attacks their normal character.

b) Unsigmatic aorists with α.

To these belong only two forms of the classic period: εἶπα and ἤνεγκα, and from Homer onwards they are constantly interchanged with the regular formations εἶπον and ἤνεγκον. The occurrence of the different formations is treated of thoroughly by La Roche Ztschr. f. d. österr. Gymn. 1872 p. 125 ff. Here the following remarks will suffice:

εἶπον (from ἐ-ϝε-ϝεπο-ν, cp. above p. 291) has prevalently the regular vowels of the thematic aorist. By the side of these α establishes itself first in the 2 sing. ind. and 2 plur. imper.: εἶπας Α 106, 108, εἴπατε γ 427, φ 198. Herodotus, in whom middle forms like ἀπείπατο are
285 common, and the forms εἶπα (iv. 44), εἶπαν, εἴπας, εἶπαι, elsewhere very rare, are well established, is the writer most fond of the α in this stem [cp. Bredow Dial. Herod. p. 324 sq., 353 sq.]. In the Attic writers the forms εἶπας, εἴπατον, εἴπατε, εἰπάτω may be regarded as the most common. Of course there is hardly any instance in which the M.SS. do not vary.

The α has a much wider extension in ἤνεγκον. Homer has the forms ἀπένεικας Ξ 255, ἐνείκαμεν ω 43, ἤνεικαν ζ 784, opt. ἐνείκαι Σ 147, imper. ἐνείκατε θ 393, inf. ἐνεῖκαι Σ 334, partic. ἐνείκας Ρ 39, mid. ἀνενείκατο Τ 314, ἠνείκαντο Ι 127. The α is also shown to be Doric by inscriptions

ἤνεγκα, ἐξενένεγκαι, ἐνεγκάμενος (Ahrens p. 352). In Attic writers the *α* is prevalent in the indicative and imperative (*ἐνεγκάτω, ἐνέγκατε*) of the active and in the whole middle. The greatest variation is shown in the optative, while in the infinitive and participle thematic forms are used. We find however in C. I. A. ii. 162, a, 4 *ἐνεγκασῶν*. Herodotus here furnishes nothing remarkable with the exception of the diphthong *ει*, common to him with Homer and occurring also in Pindar and Theocritus. Joh. Schmidt is doubtless right in explaining this *ει* from the influence of the disappearing nasal (Vocal. i. 122 f.).

In these two widely extended aorists we evidently cannot suppose the existence of a *σ*. Not only would it be quite unprecedented phonetically for forms like **εἰπ-σα*, **ἐνεγκ-σα* to change into *εἶπα, ἐνεγκα*, but there would not be the slightest internal probability for such forms in themselves, *εἶπον* and *ἤνεγκον* being reduplicated aorists, in which the notion could not occur to any one of conjecturing a smuggled *σ*. It is therefore especially clear here that the *α* is acting as substitute, so to speak, for *ε* and *ο*. There is no alternative but to suppose that, at the time when the vowels were, so to speak, still in flux, in some thematic aorists the *α* resisted the general tendency to follow the ordinary change of vowels, as has regularly happened in the active perfect, and that *εἶπα* and *ἤνεγκα* are relics of what we may conjecture to have been a large number of such archaic creations. The preservation of the *α* must have been favoured by the very large number of sigmatic aorists, and especially of those of 'suppletory' formation like *ἤγγειλα, ἔνειμα*, while conversely the phonetic changes of the stem which came about in *εἶπον* and *ἤνεγκον* had made these aorists very much unlike their nearest kin, such as 286
ἤγαγον, ἔλαβον. The confusion of the analogy of the two aorist formations is a remarkable proof that the instinct of the Greeks regarded the aorist as a syntactic unity. Under these considerations it will be best to view in the same way the aorists with a *υ* or *ϝ* in the root discussed on p. 459. Beside a present stem *καϝjο* a second theme *καϝο* might establish itself, and this then, losing the character it had in common with a present indicative, became an aorist theme, and as such, on the analogy of the sigmatic aorist, became *καϝα*. The difference from forms like *εἶπα, ἤνεγκα* is only this, that in the case of the latter we find by-forms with the ordinary vocalism, in the case of the former we do not.

All other words belonging here rest either on doubtful or on late authority; thus

ἀγάγας· ἀντὶ τοῦ ἀγαγών, and *ἄγαγον· ἀντὶ τοῦ ἄγαγε, ὁδήγησον, φέρε* Hesych.

ἐπαύρασθαι, ἐπηύρατο Aristot. Eth. Nic. v. p. 1163[a] 20; similar forms in Hippocrates.

εἰς-έδρακα Orph. Argonaut. v. 133.

εἶδα, πρῶτα δὲ εἶδα βίην Ἡρακλῆος θείοιο ib. v. 119, *εἴδαμεν* N. T. [and LXX; cf. Moulton's Winer p. 86].

ἀφ-έλαι C. I. 2557, 26, on a Cretan inscription by no means very archaic, where Boeckh perhaps rightly writes *ἀφελέν*. On the other hand Hesych. gives *εἵλατο* (also N. T. [2 Thess. ii. 13]), *ἐξείλατο* [Acts vii. 10, xii. 11], *ἀφείλαντο*, forms which Phrynichus p. 183 [cp. Lobeck's note] rejects as un-Attic. In the late poem, which is full of strange and erroneous forms, Append. Anthol. 257=C. I. 3272 we actually find beside *εἵλατο* v. 5 *εἱλάμενος* v. 9, which could only be a regular forma-

tion under the hypothesis just stated, and must otherwise be a misformation.

ἔλαβαν, ἐλάβαμεν.

ἐγκατελίπατε, ἐγκατέλιπαν.

εὗραν. εὕρασθαι is rejected by Phrynichus p. 139.

ἐφάγαμεν.

ἔφαναν.

ἔφυγαν.

287 ἤλθαμεν, ἐλθάτω, ἔλθατε (and also ἐπήλυθα Anthol. P. xiv. 44) occur almost exclusively in the LXX and N. T., but with many variants. References are given by Sturz de dial. Alex. p. 60 sq. and Alex. Buttmann, Grammar of New Testament Greek p. 39 f.

Three of these forms might possibly, on account of the liquid in the stem, be regular aorists of the 'suppletory' formation, viz. ἐπαύρασθαι, ἀφείλατο, εὔρασθαι The case of ὥσφραντο (Herod. i. 80, v. l. ὄσφραντο) beside ὤσφροντο (Aristoph. Ach. 179) is a special one, because the whole verb is quite unique (cp. above p. 286). Here the form with α has earlier authority for it than the other.

c) Aorists in -κα.

These aorists in spite of their small number form an important link in the chain of the verbal forms. Evidently the vowel of these formations is brought into quite a different light, now that we have met it elsewhere also; and thus forms like ἔ-δωκα, ἔ-θηκα approach on the one hand nearer to the perfects with which we compared them on p. 410 f., and on the other to the unique aor. ἔ-πτα-κο-ν from the rt. πτα preserved in ἐ-πτήτην. These aorists are based upon a verbal stem characterised by the suffix -κα, with the retention of the ancient α. Setting aside the quantity of the middle syllable we can state the following equation of relations

ἔ-δω-κα : ἔ-πτα-κο-ν :: εἶπα : εἶπο-ν :: δέδοικα : Syracus. δεδοίκω.

We know of five aorists in -κα, of which the three ἔδωκα (quite late ἐδωκάμην), ἧκα (in Homer also ἔηκα : cp. above p. 80; (προς)ηκάμην first in Eur. El. 622), ἔθηκα (θήκατο K 31, other middle forms in Herod. Pind.) are common in all Greek, but chiefly in the singular and the 3 plur. of the indicative, though ἐνήκαμεν occurs as early as μ 401. The forms with κ therefore are interchanged with the primitive ἔδομεν, ἔθετε, εἵην etc. precisely as in the perfect. There is further ἔτταναν· ἔστησαν Hesych., which is certainly rightly regarded as a Boeotian or Laconian modification of ἔ-στᾱ-κα-ν (Ahrens Dor. 103). A Boeotian analogy for ττ=στ is supplied by ἔττε=ἔϛτε until (Ahrens Aeol. 177), a Laconian by βεττόν=ἐστόν. There is no reason for altering ἔτταναν into ἔστασαν, as Ahrens proposes to do, except the unique character of the form.—

288 There is also ἔφρηκα, preserved in Eurip. El. 1033 ἐπειϛέφρηκε, εἰϛέφρηκεν (M.S. εἰϛέφρικεν)· εἰϛεπέδησεν, εἰσαφῆκεν, ἐξέφρηκεν· ἀφῆκεν Hesych., a form in which Nauck finds the chief support for the view that the verbal stem φρε is based upon a coalescence of προ and ἑ. For the incorrectness of this view cp. Stud. viii. p. 327 ff.—Savelsberg Ztschr. xvi. 420 thinks he has discovered another instance in the Cretan ἀπέσταλκαν. But on p. 385 we took this form as a perfect. And certainly

the mere fact that in a similar passage in another Cretan inscription we find ἀπέστειλαν cannot suffice to prove that the other form is an aorist. It would be better to support this view by the participle ἀπεστάλκαντες C. I. G. 3047, 2. But this form would be by reason of its ε such a marvellous hybrid between aorist and perfect that we hold, especially as a participle does not at all suit the context and as the copy is but poorly vouched for, that Boeckh was quite right in regarding it as a blunder for ἀπέσταλκαν.

Savelsberg, following a conjecture of Bopp's, at the place referred to, in Ztschr. xvi. 54 ff. and 401 ff. and before that in the Symbola philologorum Bonnensium ii. 503 ff., tried with much learning to give a demonstration that the κ of these aorists has come from σ. I do not think that he has made many converts to his view, for a transition from the dental spirant σ into the guttural explosive, which is in its nature so absolutely unlike it, is as improbable in itself, in spite of the attempt to find intermediate forms, as it is unexampled; and besides, one can hardly conceive why the sibilant should have been preserved in many hundreds of common aorist forms, but in a few have been metamorphosed into κ. But this zealous attempt has not been wholly without fruit, inasmuch as a number of little-noticed sigmatic aorist forms from the roots δυ, ξ, θε have been brought to light. It is true that much which Savelsberg brings in here is doubtful. For Homer especially I regard sigmatic aorists of these stems as not established. But in the Attic inscription published by Rangabé Antiqu. Hell. no. 869, 17 we have ἀποδυσάιτων, ib. 875, 5 ἀναθέσαντες. Again the unique form ἀπυδόας in the Arcadian inscription of Tegea l. 13 can hardly be explained except as from ἀπυ-δύσας; and we should have to assume an *ἔδυα on the analogy of ἔκηα, ἔχευα. From Alexandrian and Byzantine Greek 289
Lobeck ad Phryn. p. 721 quotes forms like θήσῃς, δώσῃς, which occur also especially in scholiasts (προσθήσῃς, ἐπιθήσῃ) and accordingly we read in Coluthus v. 25 (Lennep) πώεα καλὰ μεθήσας. From the rt. φρε besides the previously mentioned ἐπειςέφρηκα the form with σ occurs even in Attic dramatists, e.g. Eur. Herc. Fur. 1267 ἐπειςέφρησε, though Nauck will not allow it to stand there. Hesychius gives καθεσάμενος· χαλάσας, θέσαι· θησαυρίσαι.

d). Isolated forms.

εἶσα (κάθεσσαν Pind.), εἰσάμην (ἐφέσσατο ξ 529), mentioned because of the augment on p. 85, is unique only because the rt. ἑδ from which it proceeded, does not occur elsewhere in the active. Really εἶσα is not farther removed from ἵζομαι than ἔστησα from ἵσταμαι. Even Buttmann recognized this i.[2] 524, but he wrongly connected ἧμαι with these forms, for which see p. 103.

τόσσαις Aeolic participle Pind. Pyth. 3, 27, ἐπιτόσσαις ib. 10, 33, ἐπέτοσσε ib. 4, 25. As the meaning quite agrees with τυχεῖν, it is probable that the root of the two verbs is identical, and also that of the kindred forms τόξον, τέκμαρ (Princ. i. 271). But the aorist form remains obscure.

Finally in certain sigmatic aorists reduplication makes its appearance. There can hardly be more than two of them, and we may certainly assume that this strengthening of the stem, as comes out clearly in the

second example, passed to these aorists from other forms of the verbs in question, and was not created for them :

τεθήσατο· ἐθηλάσατο Hesych. Also in *τι-θή-νη*, *τί-τθη* (Princ. i. 312) we find reduplication.

τέτρηνα X 396, ψ 198, afterwards *τέτρανα* from the present *τετραίνω* (Herod. Aesch.). The reduplication attaches to the whole verb.

CHAPTER XVIII.

THE FUTURE.

THE perfect has been discovered to be a kind of a present, individualised only by degrees, though long before the Greek language acquired its distinctive form. With still greater positiveness we may maintain that the future also is nothing but a present form. In the latter tense this view is pretty generally recognized, and it finds the most unmistakeable support in facts not merely of the cognate languages, but also of Greek itself. It is well known that in Gothic and Old High German the indicative present is often used without any distinction with a future force. In the Slavonic languages 'the present of the *verba perfectiva* denotes the future. The present force is thrust into the background, and appears in certain cases almost as an exception' (Miklosich Vergl. Gr. der Slav. Sprachen iv. 772).[1] In the same way the Ch.-Sl. *bǫdǫ* and the Anglo-Saxon *beo*, I shall be, take no distinctive sign to express the future. In Greek the employment of certain present forms, characterised by no distinctive mark, with the force of a future, is an uncontested fact. εἶμι has acquired its future meaning only through usage and by degrees. Even the indicative retains in Homer occasionally e.g. B 87 (ἤυτε ἔθνεα εἶσι), Π 160 (ἀγεληδὸν ἴασιν), more rarely in Attic writers e.g. Thuc. iv. 61 (ἐπίασιν) the original present meaning. In the other moods and in the verbal nouns, as every one knows, this never quite disappeared. We see therefore that the case is precisely the same with these Greek present-futures as with the Slavonic presents of the *perfectiva*; the present meaning is only to a certain extent 'thrust into the background.' While ἔδω occurs often enough in poets as a present, the similarly formed middle ἔδομαι has from Homer onwards (e.g. Σ 271, ι 369 Οὔτιν ἐγὼ πύματον ἔδομαι) exclusively the force of a future. πίομαι is found in Pind. Ol. vi. 86 (τᾶς ἐρατεινὸν ὕδωρ πίομαι) as decidedly a present. Hesychius gives the active of it καταπίει· καταπίνει.[2] Else- 291
where πίομαι is future from Homer onwards: N 493 ὡς εἴ τε μετὰ κτίλον ἕσπετο μῆλα πιόμεν' ἐκ βοτάνης. A fourth precisely similar example of the kind φάγομαι occurs first in the Hellenistic period. References to the LXX and N. T. are given by Veitch p. 246. With these we may place the two Homeric present-futures δήω and κείω (by-form κέω) e.g. Ι 685 ἐπεὶ οὐκέτι δηέτε τέκμωρ Ἰλίου αἰπεινῆς, Λ 606 οἱ μὲν κακκείοντες ἔβαν, η 342 ὄρσο κέων ὦ ξεῖνε. Buttmann wished to explain these forms as contracted from the regular futures, δήω from *δαέω (cp. δάημι, δέδαα) κείω from *κεέω (Ausf. Gr. i.[2] 397). But this attempt cannot be sanctioned,

[1] [So in Hebrew the same tense (that opposed to the past) is called by some grammarians present, by others future: it may be used with either force.]

[2] Mor. Schmidt regards the gloss as a mistaken repetition of καταμιεῖ· καταπίνει. I do not see any sufficient reason for such an assumption.

if only for the reason that in the Homeric dialect *αε* does not produce *η* but *ᾱ*, and the assumed intermediate forms are wholly without analogy. Both are thematic present forms with an intensified stem-syllable. Cp. Princ. i. 178, 285.—For the quite similar Homeric *βείομαι* with the by-forms *βέομαι* and *βίομαι* even Buttmann attempted no explanation of the kind. The future force is unmistakeable in passages like

X 431 *τί νὺ βείομαι αἰνὰ παθοῦσα*
O 194 *τῷ ῥα καὶ οὔ τι Διὸς βέομαι φρεσίν*
Hymn. in Apoll. Pyth. 350 *πῶς καὶ νῦν βιόμεσθα*;

Finally there is still the quite unique *ἀναδράμεται* in the epigram of Philippus Anthol. Pal. ix. 575

καὶ νέκυς εἰς ζωῶν χῶρον ἀναδράμεται.

We should have a future perfect of a similar stamp in *ἐκγεγάονται* Hymn. in Ven. 197, if it is not incorrectly recorded, as appeared to us probable on p. 417. Whether other formations, especially some Homeric ones, are to be placed with these, or whether we are rather to assume for them the loss of the sigma, will have to be considered hereafter. But in passing we may call to mind another way of denoting the future without any distinctive mark, that by means of the conjunctive. In Homer the use of the conjunctive, e.g. in *οὔπω ἰδον*, *οὐδὲ ἰδωμαι* closely approaches that of the future. In Old Persian, and, as Dr. Hübschmann informs me, in Armenian the conjunctive has quite ousted the future, and in Zend it has done so to a great extent. It is hardly needful to
292 mention the Latin modal future e.g. *veham* (conj.) *vehēs* optative.

We pass on now from these more incomplete intimations of futurity to the formation which is characterised by a distinctive mark, and that too from an early period. The Doric dialect has the advantage of having preserved most faithfully and plentifully the archaic formation which answers to the most usual future of Sanskrit and some other languages.

I. THE SIGMATIC FUTURE.

To bring the future formation clearly into view we shall do well to keep distinct at first the two principal kinds, which are usually denoted by the expressions *futurum primum* and *secundum*, and to begin with the former, that is the regular sigmatic future. This form, as is well known, shows in the Doric dialect as compared with the others, something additional, either in the form of *ι*: *δωσίω*, or of *ε*, which is rarely retained, but may often be recognised from contraction: *δωσῶ*. The following forms are on record:

A) Active.

1 sing. *βοαθησίω* C. I. no. 2554, 191, *ἐ]πιτραψίω* inscr. of Lyttus 13 (Hermes iv. 267), *κακοτε]χνησίω* ib. 12, *σπευσίω* inscr. of Drerus 42, all Cretan: we may add *ἐντιψίω· ἐντιτάξω* Hesych.—Of the uncontracted forms in *-σέω* we have only a few Delphic examples: *ἐκπραξέω* C. I. 1688, 5, *ὁρκιξέω* ib. 13. Contracted forms like *δωσῶ*, *νοησῶ* are mentioned by the old grammarians as regular in Doric: *οἱ Δωριεῖς τοὺς ὁριστικοὺς μέλλοντας περισπῶσι* Anecd. Oxon. iv. 198, hence Ahrens is certainly right in circumflexing the numerous futures on the (comparatively recent?)

Cretan inscription no. 2555 : ἐξῶ, ἐπιτραψῶ etc., and so in Aristoph. Ach. 739 φασῶ, 747 καρυξῶ, Theocr. v. 142 καχαξῶ.

2 sing. For this person only forms like ἐξεῖς, δωσεῖς are known, and similarly for the

3 sing., only those in εῖ, of which 11 are found on the Heraclean 293
tables alone (Meister, Stud. iv. 430) ἀποτεισεῖ i. 109 (also Dreer. 161), φυτευσεῖ 114, ἐξεῖ 130 etc.

1 plur. Cretan διακαθεξίομεν (Helbig de dial. Cret. 26), πραξίομεν C. I. 3048, 15, συνδιαφυλαξίομεν ib. 31, 3058, 11.—οἰσεῦμες Theocr. xv. 133.

2 plur. For the severe Doric dialects forms in -σῆτε would be expected, but the only ones recorded are mild Doric like δοξεῖτε, ἠσεῖτε Ar. Ach. 741, 747.

3 plur. Cretan βοα]θησίοντι βοαθησίοντι (inscr. edited by Bergmann l. 15), Heracl. ἀπαξόντι i. 102, ἀποκαταστασόντι i. 149, ἐξόντι i. 120 etc. (Meister, Stud. iv. 430), mild Doric διαλυσεῦντι, ὑπαρξεῦντι C. I. 2671, l. 34, 49, and Ther. παρεξοῦντι ib. 2448, iv. l. 32, νησοῦντι Sophron 19, εὑρησοῦντι Epicharm. 92 Ahr., αὐλησεῦντι Theocr. vii. 71.

The active infinitives occur in the Cretan ἐπιτραψῆν, καθεξῆν (Bergmann's inscr. 12, 14, 70, 85), Delphic (C. I. 1688) ἀπογραψέν.—As participial forms we may quote the Megarian ἀγορασοῦντες Ar. Ach. 750, and the Cretan πρεσβευσόντας C. I. 2557 B. 4.

B) Middle.

For the 1 sing. we do not find the severe Doric -σίομαι which would be expected. We have forms like ᾀσεῦμαι Theocr. iii. 38, βασεῦμαι ib. ii. 8, πειρασοῦμαι (Ahr. 217).

2 sing. βουκολιαξῇ Theocr. v. 44, λαψῇ i. 4 etc.

3 sing. Heracl. ἐργαξῆται i. 168, ἐγδικαξῆται i. 130, καρπευσῆται i. 159, Meister Stud. iv. 430.—Mild Doric ὠνασεῖται Sophron 89, ἐσσεῖται Archimedes (Ahrens Dor. p. 203), Theocr. vii. 67.

1 plur. Cretan χαριξιόμεθα C. I. 3048, l. 16, Le Bas Inscriptions Grecques et Latines Tome iii. Partie v. no. 74, l. 16.—θησεύμεσθ' Theocr. viii. 13.—θωσούμεθ' Epich. 167.

2 plur. Megarian πειρασεῖσθε Ar. Ach. 743, λωβασεῖσθε Theocr. v. 109.

3 plur. ἐψιονται· ἀκολουθήσουσιν Hesych.—Heracl. ἐργαξόνται, ἐσσόνται i. 112, ἐπιμελησόνται 119, ὑπογραψόνται 149.—βασεῦνται Theocr. iv. 26.—δεξούνται Theraean inscription no. 2448, v. 12, ἐσσούνται Argive 294
and Laconian treaty in Thuc. v. 79.

There are also infinitives like ἐσσείσθαι Sophr. 23.—In the accentuation of the forms I have substantially followed Ahrens : on this some stress must be laid, especially as regards the Heraclean third persons plural in -σόντι, -σόνται. For these forms are only recorded on inscriptions ; hence the accentuation of the penultimate is based exclusively on the hypothesis—not an improbable one—that the Dorians here still retained at any rate in the accentuation some remembrance of the vowel once present after the σ, which elsewhere they so carefully preserved. Even in syllables not long by position the short vowel sometimes appears : Cret. βοαθησόμεν, χαριξόμεθα (πραξόμεν Helbig p. 27). We should in these cases assume without hesitation a transition into the

Attic method of formation, did not τελόμαι=τελοῦμαι (Drer. 63) show us that in this dialect *o* might be the remains of *εο*.

Outside the Doric dialect the futures of this stamp appear as the so-called Futura Dorica, exclusively with middle endings, and in only small numbers. The two Homeric instances are marked with *.

1) *ἐσσεῖται only B 393, N 317, with ἀπεσσεῖται τ 302, while elsewhere in Homer ἔσσεται, ἔσεται, ἔσται, ἐσσομένοισι etc. are common. There is also in Hesiod Opp. 503 οὐκ αἰεὶ θέρος ἐσσεῖται.

2) κλαυσούμεθα only Aristoph. Pax 1081, while κλαύσομαι etc. are common from Homer onwards (X 87) and established by the metre, e.g. Ar. Nub. 58.

3) νευσούμενοι only Xen. Anab. iv. 3, 12, where the more recent editors have adopted νευσόμενοι. In the gloss of Hesychius νευσόμεθα· νηξόμεθα there is certainly no reason for this alteration.

4) *πεσέονται Λ 824, πεσέεται Herod. vii. 168, πεσοῦμαι the only future form of πίπτω in ordinary use from Aeschylus onwards. From what was said as to ἔπεσον on p. 462, it results that the word must be divided πε(τ)-σέο-μαι, not, as some might think, πεσ-έο-μαι.

5) πευσεῖσθαι, the reading of the Med. and other M.SS. in Aesch. Prom. 988, retained by G. Hermann, but changed by Dindorf and Weil into πεύσεσθαι, which is common from Homer onwards (ψ 262). πεύσεται Aesch. Choeph. 765.

6) πλευσούμεθα Thuc. i. 143, πλευσεῖσθαι viii. 1, and similar forms
295 also in the orators (Lys. xiii. 25, Demosth. lvi. 6), while by the side of it πλεύσομαι everywhere occurs (even in μ 25).

7) πνευσεῖται found in the M.SS. in Aristoph. Ranae 1221, altered by Dindorf into πνεύσεται, both being metrically possible. The contracted form in Aristotle Meteor. ii. 8 (p. 367, a, 13) πνευσεῖσθαι. ἐμπνεύσομαι Eurip. Andr. 555.

8) ῥευσεῖται Aristot. Meteor. ii. 4 (p. 361, a, 33), ῥευσοῦνται ib. 2 (p. 356, a, 16). On the other hand ῥεύσεται Theogn. 448, ῥεύσονται Eurip. fr. 388 Dind.

9) φευξούμεθα established by the verse in Eur. Hel. 500, 1041, Aristoph. Plut. 447, φευξούμενον Ach. 1129, while Dindorf Eur. Bacch. 798 writes φεύξεσθε for the φευξεῖσθε of the M.SS. In prose writers too ἐκφευξεῖσθαι and the like, e.g. Plato Rep. iv. 432 d., have been retained in our texts. By the side of it φεύξομαι is in well-established use in Homer and Attic writers (Σ 307, Aesch. Suppl. 456).

10) χεσοῦμαι the only future form in use from χέζω, e.g. Ar. Vesp. 941.

These ten remarkable exceptions[3] to a rule firmly based upon thousands of instances give us the impression of having maintained themselves in popular usage from an ancient date, all the more so that the verbs to which they belong are very common. We certainly cannot suppose that there was any borrowing from the Dorians. These forms show us rather that in the non-Dorian dialects it was only by degrees

[3] An eleventh form of the kind, generally placed in the list with these, παιξοῦνται Xen. Conv. 9, 2, is justly noted by Cobet Novae Lectiones p. 634 as un-Attic, the words being spoken by a Syracusan.—A twelfth τεξείεσθε Arat. Phaen. 124 is very extraordinary, and for that reason suspected by Buttmann (Ausf. Gr. i.[2] 390): if it is correctly recorded, we can only understand it as an imitative lengthening of *τεξέεσθε, τεξεῖσθε.

that the shorter formation took its place by the side of the fuller. These exceptions support the view established by comparative grammar, according to which the Doric future preserved most completely the original elements of this tense.

This view (Bopp Vergl. Gr. ii. § 648 ff., Schleicher Comp.[3] 807, Joh. Schmidt 'La formation des futurs,' Revue de Linguistique 1870) is based upon the comparison of Sanskrit, Zend, Lithuanian and Slavonic. The Sanskrit future in *-sjā-mi* e.g. *dā-sjā-mi*=Dor. δω-σίω agrees exactly 296
with the Doric form. The vocalisation of the *j* in other cases produced *ε*, just as in the Homeric κενεό-ς from the primitive form κϝέν-jo-ς, which comes very near to the Skt. *çūnja-s* for *kvan-ja-s*. For these phonetic processes it is sufficient to refer to Princ. ii. 239 f. The future of Zend comes still nearer to the Greek. The termination *-mi* is here wanting in the 1 sing. *vakh-shyâ* (= Skt. *vakshjāmi*) from the rt. *vac* speak, would quite correspond to a Doric *ϝεπ-σιω (from εἶπον), the acc. sing. of the participle *bû-shyañt-em* to a *φυ-σίοντ-α. In Zend there is even an example of the fut. middle participle, the gen. plur. *zãhyamnãm* (*ca*), where *hy* appears as the representative of *shy*. If we imagine a form *γενσομαι formed on the analogy of *φύρσω* as the future of the root *γεν*, the genitive plural might be translated into the 'rough Greek' [Princ. i. 19] by *γενσομένων. Schleicher Comp.[3] 806 speaks also of Zend futures 'with a dropped *j*,' which would answer in a still higher degree to the Attic futures. But these forms, e.g. *dāoṅhā*=δώσω, are better taken as conjunctives with the force of a future (cp. Jolly, Ein Capitel vergl. Syntax p. 38). The ordinary Lithuanian future in *-siu*, e.g. *bù-siu* (from *bundù* watch) has preserved the spirant before the *u* of the 1 sing. throughout in the form of the vowel *i*, while in other personal forms the syllable *sja* is shortened to *si*, by which e.g. *bù-si-te* becomes much like an Attic φύ-σε-τε. Entirely isolated traces of a similar formation have been adduced from Church-Slavonic by Schleicher and Joh. Schmidt *u.s.*

If we keep all these facts before our eyes, it becomes extremely probable, that the future in *-σω* is not a formation differing in principle from the Doric, but one proceeding from the same primitive form by the way of phonetic weakening. We shall be able to represent to ourselves the course of the phonetic change with most probability in the following way:

From the Indo-Germanic primitive form e.g. *dā-sjā-mi* came as the Greek primitive form *δώ-σjω. The *σ* in this form had the sharper pronunciation, which it possessed always before consonants. At the time when the spirant *j* began to be disappearing, it underwent a two-fold change, on the one hand being vocalised, the *j* becoming sometimes *ι*, sometimes *ε*, which finally survived only in contraction, and on the 297
other being altogether lost. The former method of treatment was the prevalent one among the Dorians, though it was not wholly unknown to the other stocks, the latter in the remaining dialects. But throughout, even before vowels, the sibilant preserved the sharper pronunciation, which protected it to a large extent from passing into an aspirate.

The statement of the case here given differs somewhat from that which is to be found in my Tempora u. Modi p. 312. There with regard to a part of the forms here under consideration, I laid stress upon the double *σ*, which the Homeric dialect gives in forms like ἀγάσσεσθαι

δ 181, *αἰδέσσομαι* ξ 388, *ἐλάσσω* Ψ 427, *ὀλέσσω* M 250, *ὀνόσσεται* I 55. I accepted the explanation of Bopp, who explains the double *σ* on numerous incontestable analogies, from assimilation. *ἐλά-σσω* would thus come from *ἐλα-σjω*, just as the Prakrit *kar-i-ssadi*=Skt. *kar-i-shjati* (he will make) has come from **kar-i-sja-ti*. In following up this theory, which cannot be attacked from the point of view of the history of sounds alone, it was very natural to derive the simple *σ* of the future throughout from *sj* through the intermediate stage of *σσ*. We might even attempt to account in this way for the stubbornness with which the sibilant maintains itself even between vowels. But against this an insuperable objection is raised from the side of the Doric future, for the *σ* of the Doric *δω-σίω*, which certainly did not come from *σσ*, has just as much vital force as that of *δώσω*, which conceivably might have originated in *σσ*. Hence the reason for the vital force of the sibilant cannot be found in the swallowing up of the *j*. But there are also other objections to this view, raised by Leskien Stud. ii. 81 ff. The double *σ* is even more common in aorists like *ἀγάσσασθαι*, *ὀλέσσαι* etc., where we cannot suppose the existence of *sj*, than in futures. It is evidently most closely connected with the *σ*, which appears in the perfect middle, in the passive aorist in *θη*, in the verbal adjectives, and in many nominal forms, and which will occupy us in a subsequent chapter. The *j* seems to have been lost not by assimilation, but through the intermediate stage of an irrational vowel, lying halfway between *e* and *i*. Bopp § 656 well
298 compares the O. H. G. *krefti-o*, gen. plur. of the stem *krefti* (*Kraft*, strength) with its by-forms *krefteo* and *krefto*. We may also compare Greek forms like the Homeric *κενός* by the side of *κενεός*, *ὅς* beside *ἑός*, Ion. *ὁρτή* beside *ἑορτή* and other phenomena of the hyphaeresis discussed by Fritsch Stud. vi. 87. From this manner of considering the question it is perhaps still easier to understand how it comes about, that the *ε* is retained at least sporadically outside of the Doric dialect.

Now that we have, while reserving for the present the so-called futurum secundum, established, as I believe, the unity of the whole Greek future formation, we must enter upon the origin of the form. The almost universally adopted doctrine of comparative grammar is that in the syllable *sja*, which characterises the future, the *s* belongs to the verb substantive, and hence is identical with the *s* of the sigmatic aorist, while the *ja* which remains is the exponent of the future meaning. Thus the future is held to be a doubly compounded tense, as compared with the simply compounded sigmatic aorist. With respect to the manner of regarding these elements, and their original function, there are two different shades of the same fundamental view. Bopp in the future termination *-sjā-mi* brought out mainly its relationship with the potential of the rt. *as*, *sjā-m* extant in Sanskrit (Vergl. Gr. ii. § 648). Following him I went so far in the Tempora u. Modi p. 317 as actually to derive the termination *-sjā-mi from* the optative potential *(a)s-jā-m*, and to regard the primary endings proper to the future as a later modification of the secondary endings belonging to the optative. The latter view is erroneous and cannot be supported by any analogy. Hence I have withdrawn it already in my 'Chronologie'[2] p. 60, 63, and adopted the slightly differing analysis of the future, which has been put forth by Benfey (Kurze Sktgr. § 304) and Schleicher (Compend.[3] 803) and carried out by Joh. Schmidt l. c. According to this the future is a compound

present form, the first element of which is a verbal root, while the second element is the present form *(a)s-jā-mi*, that is to say a present from the rt. *as* be, formed after the fourth or *i*-class. This explanation seems to be indubitable. But still with respect to the way of regarding the different elements here united, and their function, there are still some 299
differences between particular scholars. Schleicher holds the future force of the present form *as-jāmi*, which is added to the root, to be something, so to speak, casual, though he identifies it, as had long been recognized, with the Lat. *erō*. He calls *as-jā-mi* 'a present form, which like so many present stems in Indo-Germanic has a future force.' Joh. Schmidt expresses himself still more positively to the same effect. Both consider futurity to be as little denoted in *dā-sjā-mi* as in ἔδομαι or πίομαι mentioned on p. 467. Benfey on the other hand takes *as-jā-mi* itself as a compound of the rt. *as* with the rt. *jā* go, so that he translates it by 'Ich gehe sein,' comparing the French use of *je vais* and the English of *I am going to*. The second view has decided advantages over the first. First of all, it replaces mere chance by a link of causation. According to Schleicher and Joh. Schmidt any other present formation might have been employed just as well as this to mark the future; according to Benfey, whose view approaches that of Bopp, the reason for the choice of *this* present formation lies in the fact that its meaning was especially adapted to such an application. Hence it is no longer mere chance that two presents compounded with *ja*, *ero*=**esjo*, and (though this is preserved only in composition) *-bo* for **bio* had a future force among the Romans. The view of Schleicher and Schmidt is really supported only by the fact that there are futures in which there is nothing to denote futurity. But from this fact nothing follows but that under some circumstances futurity *can* remain undenoted, not that it always *must* so remain. The notion of the past is often undenoted in the historical present. Does it follow from this that the augment, the exponent of the notion of the past, acquires this function merely accidentally? But besides much weight must be attached to the fact that the termination of the future coincides with that of the optative. We thought above p. 325, that we could trace the optative syllable *ja* also back to the rt. *ja* go, and concluded from the extant traces of primary endings in this mood, that the optatives had once ended in *-jā-mi* in the 1 sing., and that consequently that from the rt. *as* was once *as-jā-mi*. Now the consistent carrying out of the view of Schleicher and Schmidt would 300
lead to this, that we should have to explain the optative force of this 'present form' as also something purely accidental. But we can hardly explain the multiplicity of the present formations otherwise than from the pressing need of denoting different sides of continuous action. The form in *-jā-mi* must therefore have also had originally some such special force, though this afterwards disappeared, and if we have before us in the rt. *ja* a verbal root, which was perfectly adapted to denote intended action, it is highly probable that we must recognize in composition with this root the starting point of the functions alike of the future and of the optative. Of course the future must then have arisen at a period in the life of language in which *ja* had not faded away into a mere present element to the extent to which it did afterwards. The distinction between this later-born tense and the mood which was probably earlier developed, was well provided for by employing for the future not the simple rt. *ja*,

but only the rt. compounded with *as*. Nothing hinders us from assuming, that at that period *as-jā-mi* was surviving also as used independently with the meaning 'I am going to be,' 'I am becoming'; and that the Lat. *ero* with its firmly established future force is an inheritance from this ancient time.

Sonne Ztschr. xii. 343 is the only scholar, so far as I know, who, within the sphere of comparative grammar, has attempted to give an explanation of the future differing in principle from the analysis just stated: and this, after the fashion peculiar to this acute but somewhat audacious investigator, is supported with only a few words. Sonne finds it surprising that 'the future characteristic *ja* should have occurred originally only after the rt. *as*.' This objection is met, if we regard all presents in *-jā-mi* as parallel to *as-jā-mi*, and take the syllable *ja*, by no means as marked from the first with the character of the future, but only as a present expansive especially adapted to be employed for this purpose. He himself sees with Benfey, and in agreement with the view stated above, in the syllable *-ja* the rt. *jā* go, but is of the opinion that
301 this is compounded not with the rt. *as* be, but with nominal stems in *-as*, which he calls infinitives. He divides e.g. the Sanskrit form *bhavish-jā-mi*, I shall be, tracing it back to *bhavas-jā-mi*, into the 'infinitive' *bhavas* being, and *jā-mi* I go. According to this view all Greek and Lithuanian futures, and a very large portion of the Sanskrit futures also, e.g. *dā-sjā-mi*, *diksh jā-mi*, must have suffered syncope, and all the rest a weakening from *a* to *i*, and all many other phonetic changes besides. This is quite enough to upset this explanation, all the more so that we do not discover anywhere else in the neuters in *as* Gk. ες (nom. ος), Lat. *es*, *os* (nom. *us*) any tendency whatever to drop the vowel before the *s*. Besides, apart from the Latin infinitives in *re*, where however there are difficulties still remaining, there is no instance in which nouns of this kind in *as* were used as infinitives. Sonne's view has therefore justly met with no assent.

After determining the origin of the sigmatic future, it would be proper for us, as hitherto only the Doric forms have been separately quoted, to discuss more in detail the ordinary formations. But as the future is one of the tense-forms universally in use, to be expected from every verb, and is formed with the greatest regularity from the most different stems, there would be no sense in quoting here a multitude of examples. We may rather, as in the case of the sigmatic aorist, renounce altogether any such enumeration. What is otherwise noteworthy in the form which the stem takes as regards both consonants and vowels, the future shares almost altogether with this aorist. I may therefore refer on all these points to the preceding chapter. The relations of the consonants are there discussed p. 452 ff. where forms like βάξω, ἐγγυαλίξει, φύρσω etc. find their explanation: those of the vowels p. 457 f. In the preference shown for intensified vowels of the stem the Greek and the Indian future coincide e.g. *bhōt-sjā-mi* (rt. *budh* awake) compared with Gk. πεύσομαι (rt. πυθ), *gē-shjā-mi* (rt. *gi* conquer), compared with εἶ-σο-μαι (Ξ 8, rt. *i* go). Hence there remain only a couple of quite unique futures to be mentioned. There is the isolated Homeric διδώσω: δῶρα διδώσομεν ν 358, which much disquieted Aristophanes of Byzantium
302 (Schol. H. Q. on this passage: δυσχεραίνων ὁ Ἀριστοφάνης τῷ διδώσωμεν γράφει παρέξομεν), and also διδώσειν ω 314. δώσω is common enough

even in Homer. The Cretan inscription no. 2554, where in l. 201 we find ΔΙΔΩΣΑΙ, which Boeckh is certainly right in reading *διδωσίω*, on the strength of the context, may warn us against any attempt at correction. The reduplicated form has been formed from the present stem instead of the verbal stem; and we have already found the influence of the present stem upon the sigmatic tenses in the case of the aorist. The Herodotean *λάμψομαι* (e.g. i. 199) is also based upon the extension of the present stem. And on p. 465 f. we learnt to recognize three sigmatic aorists with a similar unexpected reduplication.—We may further quote as exceptional the future *συνθύξω· συναντήσω* from Hesychius, which attaches itself to the present forms *ἀποθύσκειν* and *ἐνθύσκειν* mentioned on p. 197. The transposition of the aspiration to the initial letter is surprising only because it is not found in the usual forms *τεύξω, τεύξομαι*, both occurring in Homer. Really *θύξω* is quite of the same nature as the ordinary forms *θρέψω, θρέξαι*.

II. THE FUTURE WITHOUT σ.

A) From Stems in λ μ ν ρ.

Passing on now to the future forms which show no *σ*, we begin with the so-called futurum secundum of the liquid verbs. The difference in respect of the future formation between the stems ending in vowels or explosive consonants on the one hand, and those ending in the continuous sounds *λ μ ν ρ* on the other, extends through all the Greek dialects. The few sigmatic futures from such stems have been quoted above p. 456 f. under the aorist. In the great majority of these verbs, which the very common categories of derived verbs (pres. *-αινω, -υνω, -αιρω, -λλω*) make unusually numerous, instead of the termination *-σω* in the 1 sing.—to describe the matter by its external results—we have *-εω*, represented in some branches of Doric by *-ιω*, and elsewhere becoming by contraction *-ῶ*. The following forms may suffice as instances:

1) Dor. *ἐμμενίω*, Cret. inscript. C. I. 2554 l. 189 f. and 200, *ἐξαν-* 303
γελίω Cret. inscr. of Dreros B 30, *ἀναγγελίοντι* Heracl. Tabb. i. 118, *ἀνκοθαρίοντι* ib. 132, *ἐπικαταβαλίοντι* 134 according to the probable correction of Ahrens (Dor. 209) for the senseless ΕΠΙΚΑΤΑΒΑΝΟΝΤΙ. *ὀμιώμεθα* Aristoph. Lys. 183.—But *ἐμβαλεῖ* ib. 115, *κρινεῦντι* C. I. 2671, 35, *ἐμβαλοῦμες* 2448, viii. 26, *κρινεῖ* Theocr. viii. 25, *ἀλεῦμαι* Theocr.

2) Homer. *βαλέω* Θ 403, *μενέω* Λ 317, *ἐϋφρανέω* Π 297—*κτενέεις*[4] Χ 13—*ἐρέει* Δ 176, *ὀτρυνέει β* 253—*ἀγγελέουσι* Ι 617, *ἀρτυνέουσιν α* 277—*βαλέειν* Θ 417, *ἐρέειν* Γ 83, *πημανέειν* Ω 781—*ἀγγελέων δ* 24, *ἐρέουσα ψ* 2, *θαυμανέοντες θ* 108—*ὀλέεσθε* Φ 133, *ὑπερθορέονται* Θ 179—*θανέεσθαι* Δ 12. Contracted forms, often the only ones metrically possible, are much less common: *κτενεῖ* Ο 65, *ἐκφανεῖ* Τ 104, *ἀμφιβαλεῦμαι*[5] *χ* 103, *καμεῖται* Β 389, *ὀρεῖται* Υ 140, *ἀγλαϊεῖσθαι* Κ 331, *φανεῖσθαι μ* 230.

[4] The future forms with *α* e.g. *κατακτανέουσι* Ζ 409, *κτανέοντα* Σ 309 are regarded by Cobet Mnemos. N. S. iii. 270 as corrupt. Certainly they are quite isolated.

[5] A difficulty, already noticed by Matthiae i. 405, is presented by *ὀμοῦμαι* Α 233, Ι 132, Φ 373, *ν* 229 beside *ὀμεῖται* Ι 274. The latter form leads us to conjecture that *ὀμοῦμαι* goes back to *ὀμέομαι*, but it is well known that *εο* never gives *ου* in Homer. It would however be very bold on that account to write **ὀμεῦμαι*. It is better to suppose that *ὀμοῦμαι* comes from the stem *ὀμο*, i.e. from **ὀμοομαι*, (cp. *ὅμοσα, ὁμοτός*) and that the isolated *ὀμεῖται* is a later imitative form,

In Herodotus according to Bredow de dial. Herod. p. 375 f. where a large collection of examples may be found, the uncontracted forms like διαφθερέω, κερδανέεις, ἀμυνέειν, ἀποβαλέειν, ὑπομενέουσι, ὑποκριτέεσθαι, φαιέονται are regarded as the more correct. Compare however Merzdorf de dial. Herod. Stud. viii. 149 ff.

3) There is evidence that these forms are also Lesbian Aeolic, e.g. ἐμμενέοισι C. I. 2166, 24 and σπολέω Sappho fr. 50 Be.[3], where Ahrens with G. Hermann writes καισπολέω (σπολέω=Att. στελῶ).

4) The regular contracted forms of Attic, in constant use from the earliest times, both from root-verbs like βαλῶ, -μενῶ, δερῶ, τεμῶ, ἀποκρινοῦμαι, and from derived verbs like ἀγαλῶ, καθαρῶ, ἰσχναρῶ, τεκμαιρ-
304 οῦμαι, οἰκτερῶ, need no examples. Such futures belonged to the stores of the Attic writers in daily use quite as much as the sigmatic. Hereby the so-called futura secunda distinguish themselves essentially from the other 'tempora secunda.'

We proceed now from the demonstration of the facts to their explanation. The futures in -εω at first sight differ enough from those in -σω to justify the attempt to separate them completely one from the other. This attempt has been made by Hugo Weber in the Philologus Vol. xvi. (1860) p. 694 with the support of Voretzsch de inscr. Cretensi p. 29. Weber's view, with which Benfey 'Entstehung des Optativs' p. 62 agrees, proceeds upon the notion that the futures in the Dor. -ιω, Ion. -εω, without having lost a sigma, were formed by the addition of the rt. *jā* go, to a stem expanded by an ε. The termination -ιω, -εω would thus be identical with the *-jāmi* from which came **as-jā-mi*, but also with the *-jā-mi* from which the numerous presents of the I-class proceeded. But whilst e.g. φαίνω comes from φαν-ιω, the future φαν-ίω or φαν-έω would come from a *φανε-ϊω or, translated into ante-Hellenic sounds, **bhana-jā-mi*. I do not deny that this hypothesis is a possible one, and in harmony with many phenomena of the Indo-Germanic verbal formation. If the view of Weber were right, we should have in such futures the analogies to *as-jā-mi* of which Sonne so bitterly feels the want, as was noticed above p. 474. But to become probable, it would need definite and unmistakeable analogies from the cognate languages, of which it is entirely devoid, apart from the solitary Latin *-bo*, *-bis*. We hold it to be an essential principle of method that comparative grammar has to reckon as far as possible with given and really existing forms. As long as it is possible, without violating Greek phonetic laws and while keeping in mind other points of view here coming into consideration, to bring a widely extended future form into harmony with the prevailing sigmatic method of formation, this course seems to me to deserve the preference. It is almost exclusively verbal stems of a perfectly definite phonetic character which form their future without σ: almost all others form theirs with σ. It is hence extremely natural to look for the reason of the difference not in the existence of two types originally quite
305 distinct, but rather in the phonetic character of the stems, and to assume essentially only one future formation.

These reasons determine me to hold on the whole to the view which Buttmann stated with an acuteness remarkable for his time, and

like the Laconian ὀμιώμεθα quoted above, which undoubtedly points to an ὀμεόμεθα. ὀμοῦμαι would then be the future of the expanded stem ὀμο, ὀμεῖται that of the rt. ὀμ which underlies the present ὄμνυμι.

expressed in the following words (Ausf. Gr. i.² 394) : 'We set down -σω as the proper and universal termination of the future everywhere: this was appended sometimes with, sometimes without the connecting vowel ε.' The only doubt, I think, which can arise is whether the expression 'connecting vowel' is correct, and this will have to be discussed immediately. Bopp too Vergl. Gr. ii. § 656 maintained the unity of the Greek future formation. But he was wrong in his explanation of the vowel appearing in forms like *στελ-ίω, στελ-έω, which he regarded as identical with the *j* of the ending *-sjā-mi*. According to Bopp's explanation the futurum secundum, to use the traditional fashion of denoting it, would be a degenerate form of the Doric future. But from *στελ-σιω, *μεν-σιω we could never get στελ-ιω, μεν-ιω, as I showed in Tempora und Modi p. 315, but only *στελλ-ιω, *μεννιω, and further in Attic *στειλέω, *στειλῶ, *μειι έω, *μεινῶ, just as in the aorist from *ἔστελσα came ἔστελλα, ἔστειλα. As in Greek it is only between two vowels that the sibilant is wont to disappear without leaving any trace, we should have to expect for *στελ-ιω the previous stages *στελε-σιω, *στελε-ϊω. And this paves the way for the admission, on which Schleicher Comp.³ 807 bases his statement, that the Greek future formation goes back to the two primitive forms 1) σjω 2) εσjω ; and further it can hardly be doubted that this twofold form is not without connexion with the twofold formation to be recognized in Sanskrit, on the one hand

-sjā-mi e.g. *vak-shjā-mi* from rt. *vaḱ* speak

on the other

-ishjā-mi e.g. *tan-ishjā-mi* from rt. *tan* stretch (cp. τεν-έω).

The only difficulty lies in the explanation of the vowel appearing in the second form, which in Sanskrit is *i*, in Greek ε.

The different possibilities in the way of explaining this vowel have been so frequently stated of late, most recently by Clemm Stud. vii. 65, that I can deal with them briefly. There are three possible explanations. Either the ε belongs to the second part of the compound : *τεν-εσjω, or 306
it belongs to the first : *τενε-σjω, or thirdly it is a phonetic mediating element naturally produced between the two : *τεν-ε-σjω. The first explanation, supported by Benfey, Kurze Sanskritgr. p. 182, L. Hirzel Ztschr. xiii: 218 ff. and Schleicher Comp.³ 806 proceeds upon the notion that in this ε the initial vowel of the root ἐς has been preserved. The chief reason against it is that the ε of the root is always lost in composition with this root, and that the *i* of the corresponding Sanskrit forms cannot possibly be so explained wherever it appears (Leskien Stud. ii. 79). The second view, that of Leskien and Joh. Schmidt, finds its chief support in the wide extension of *e*-stems as by-stems to shorter primitive forms, which we discussed on pp 258 f., 264. But we cannot fail to perceive a difference here. Forms like εὐδήσω beside εὕδω, ᾠήθην beside οἴομαι bear no relation whatever to particular sounds. On the other hand the so-called futurum secundum, with a few exceptions to be discussed hereafter, is only formed from stems in λ μ ρ, while we must confess that no rule has been discovered as yet to determine what Indian verbal stems have their future ending in *-sjā-mi*, and what in *ishjā-mi*. Against the third explanation, adopted by Bopp and by myself in the Tempora und Modi, according to which the ε has been developed purely phonetically, the

objection is made that we cannot see why the aorist e.g. *ἐ-μεν-σα* (then *ἔμεννα*, *ἔμεινα*) got on without the *ε*, while the future e.g. **τεν-ε-σjω* (then **τενεjω τενίω* or *τενέω*) regularly took this vowel. But one circumstance has been overlooked here. The presupposed primitive form **τενσjω*, from which **τενεσjω* must have been developed by anaptyxis, is one degree harsher than **ἔ-τενσα*. The three consonants *νσj* could more easily produce a natural vocalic by-sound, than the two *νσ*. Considering everything, however, I incline to an explanation, which, if I am not mistaken, pretty nearly coincides with that of Leskien. There were, I believe, of old in many cases double stems: *man* and *mana*, *tar* and *tara*. At an early period in language the future was formed sometimes from the shorter, sometimes from the longer stems without any firm
307 distinction. This state of things continues in Sanskrit, only that here the *a* has sunk into *i*, and that the sigmatic aorist also by no means rejects the same vowel. In Greek, as in many other cases, so here too, a phonetic rule has been established, to which there are hardly any exceptions. The longer forms serve only to help out a difficulty where the future form without a vowel would become quite too harsh, and would hence lead to an obscuring of its origin.

It still remains for us to trace out more precisely the path by which the presupposed *-ε-σjω* became the Doric *-ιω*, the ordinary Grek *-εω*, *-ῶ*. We must, it seems, assume that the sound after the *σ* was vocalized in these forms very early, certainly before the separation of the Greek dialects, or, to express ourselves with more caution,—for it is hard to determine the priority of *j* and *i*—established itself as vocalic, in short, that there was a time at which men said

*λειπ-σjω but *τενε-σίω.

I do not, I confess, see any definite reason for this difference. Possibly the accumulated short vowels contributed to give a fuller intonation to the vowel at first irrational. From **τενε-σίω* then came **τενε-ϊω*, whence Dor. *τενίω*, in the remaining dialects *τεν-ῶ*, *τενῶ*. From the form **τενε-ϊω* everything goes on regularly. For it is well established in the case of the presents of contracted verbs also, that they proceeded (cp. p. 241) from *ε-ϊω* on the one hand to *ιω*, on the other to *ε ω̃*. Cp. Cret. *κοσμίοντες*, *ἀδικίων*. It is worth noticing the greater permanence of the *ι* in these forms shown by the Heraclean dialect: *ἀι ανγελίωι τι*, *ἀνκοθαρίοντι* as distinguished from *ἐξόι τι*, *κοψόντι*. This greater persistency is occasioned by the fact that the *ι* of the former forms has taken up an *ε* into itself.

B) Contracted Futures without a Sigma from other Stems.

A considerable number of stems with a short vowel, which are followed by a few consonantal stems with short accessory vowels, form a contracted future without sigma, which in its most extended application bears in our grammars the name *futurum Atticum*, again not at all in the sense that this form was unknown to the other Greeks, but only
308 because the grammarians wished to recommend it as a good Attic form. We will first survey the facts of the case, and then proceed to explain them. The forms belonging here are of three kinds, according as the short vowel, after which the *σ* is rejected, is *α*, *ε* or *ι*.

1) From stems in α.

The most common are the futures of stems whose present ends in *-αζω*, though, as Buttmann i.[2] 391 notices, the Attic form here too is always only 'a by-form' of the ordinary sigmatic formation, and in the case of many verbs is either altogether rejected[6], or crops up only in the Hellenistic period, beyond the limits of correct prose. From presents in *αζω* we find the following futures:

1) *ἁρπῶμαι* LXX, cp. Veitch p. 90.

2) *βιβῶ. βιβῶν* Soph. O. C. 381, *προϲβιβᾷ* Aristoph. Av. 425, and the like in Plato, Xenophon, Demosth., with middle forms also: *ἀναβιβῶμαι* Amipsias (Com. ii. p. 713) Aeschines ii. 146, *ἀναβιβᾶται* Demosth. xix. 310.

3) *δικᾶν. οὐκ ἔφη δικᾶν ἔτι* Herod. i. 97, while at i. 90 we read *δικασόμενοι*. The Attic writers in this instance used only the sigmatic form. On the other hand we find on the Cretan inscription C. I. 2554 l. 66 the strange form *δικαῶσι* (*τἄλλα δὲ δ. οἱ κριταί*), which surprises us if only by the termination *-σι* besides numerous instances of *-ντι*, and as the solitary witness to an Attic future among Dorians has the less support that it does not suit *ἐδίκαξαν* and other forms of the kind.—The mid. *δικώμαι* LXX.

4) *ἀπο-δοκιμᾷ* only Herod. i. 199, unless we have there a present form for which there is no other evidence, for the context neither requires the future nor excludes it.

5) *ἐξετῶμεν* Isocr. ix. 34, elsewhere always *ἐξετάσω* etc.

6) *ἐργῶμαι* LXX.

7) *κολᾷ* Aristoph. Equ. 456, *κολωμένους* ib. Vesp. 244. Often with the *σ*.

8) *πελῶ* Aesch. Prom. 282, *πελᾶτε* Soph. Phil. 1150: cp. *πελάσω* Eur. El. 1332.

9) *κατα-σκευᾶν* inscription of Olbia C. I. 2058 B. l. 29, 53. 309

10) *κατα-σκιῶσι* Soph. O. C. 406.

There are further the following futures from stems of the same kind, though the present does not anywhere, or, at any rate, does not in the same writers end in *-αζω*:

11) *ἀντιόω. κεῖσ' εἶμι καὶ ἀντιόω πολέμοιο* M 368, *ἀντιόων ταύρων* α 25 beside *ἀντιάσεις* χ 28 (cp. *ἀντιάσας* and the like). *ἀντιάζω* Soph. Eur. Pind. Herod.

12) *δαμᾷ. εἰ δὴ ὁμοῦ πόλεμός τε δαμᾷ καὶ λοιμὸς Ἀχαιούς* A 61, *ἢ ἴξομαι—ἢ δαμόωσι* Z 368. The present was *δάμνημι* in Homer, but *δαμάζω* in the tragedians and elsewhere.[7]

13) *ἑλῶ. ἑλόωσι* N 315, *η* 319[8], *ἑλῶσι* Herod. i. 207, *ἑλάαν* P 496,

[6] We cannot find any principle for the choice of one or the other form in Attic writers. Veitch p. 170 makes the good remark, 'What induced the Attics to spare *σ* in *δικάζω*, and expel it from others in the same category, *βιβάζω* etc., we leave for Uniformists to tell.'

[7] Buttmann Ausf. Gr. i.[2] 392 conjectures, with Dindorf's conditional approval, for Aristoph. Eccl. 161 *ἐκκλησιῶσ'*, cp. Thesmoph. 90 with Dindorf's note.

[8] Cobet Mnemos. Nova series ii. 395 prefers in N 315 the reading quoted by Didymus from the *ὑπομνήματα* of Aristarchus, *ἐόωσι* and in ε 290 *ἐάαν*, both as futures from the root *ἀ = sa* (*sa-tur*) occurring in *ἄμεναι*, *ἔομεν* (*ἔωμεν*). But while we can easily understand the *ε* in *ἔωμεν* (cp. *στέωμεν*), we cannot understand it before an *α* in **ἐάσω* for which we should have expected **ἤσω*.

Aesch. Eumen. 75, ἐλᾷ Soph. Aj. 504, ἐλᾷς Aristoph. Ran. 203 besides Hom. ἐλάσσω, παρελάσσεις Ψ 427, ordinary Greek ἤλασα etc.

14) κρεμόω Η 83 (οἴσω καὶ κρεμόω), κρεμῶμεν Arist. Plut. 312.—κρεμάσω Alcaeus Com. (Com. ii. 827).—ἐκρέμασα, κρεμαστός etc. in ordinary Greek.

15) περάαν, future to πέρημι or πίπράσκω Φ 454 beside ἐπέρασσα.

16) ἀνα-πετῶ Menander (Com. iv. 77), ἐκπετάσουσι Eurip. (Iph. T. 1135.—πετάσαι Homer. πετάσσαι) and the like, widely extended.

17) δια-σκεδᾷς Herod. viii. 68, 2, διασκεδᾶν ib. i. 79.—σκεδᾷ Aesch. Prom. 925, ἀποσκεδῶ Soph. O. R. 138, συσκεδᾶν Aristoph. Ran. 903.—σκεδάσεις Theog. 883, and the like in later prose.—ἐσκέδασα from Homer onwards.

2) From stems in ε.

These futures are few in number. We can here again draw various
310 distinctions, especially that between stems which have ε throughout, and those where the ε is accessory. We place the former first. Among them the form ἀμφιῶ (from ἀμφι-έ-σω, which is preserved in ε 167) takes a place of its own, inasmuch as the ε here represents the root itself. προς-αμφιῶ is found in Aristoph. Equ. 891, ἀπαμφιεῖ Menander in Meineke's Comici iv. p. 171. The remaining forms are:

1) γαμέω Ι 388, γαμεῖ Aesch. Prom. 764 etc. in poetry and prose. For this verb there is also the shorter stem γαμ, so that γαμέω as a future is related to ἔγημα as σφαλῶ to ἔσφηλα.[9]

2) καλέω. καλέουσ' ἴε Γ 383, καλῶ, καλοῦμαι in all Attic. But beside this there are ἐγκαλέσει Demosth. xix. 133, ἐπικαλέσεται Lycurg. 17, ἐκκαλέσεσθαι Aesch. i. 174.

3) κορέει Θ 379, κορέεις Ν 831, but κορέσω Herod. i. 212.

4) τελέω Ψ 20, ἐκ δὲ καὶ ὀψὲ τελεῖ Δ 161, beside τελέσσω Ψ 559. At β 256 the M.SS. vary between τελέει and τελέσει. τελῶ is quoted from dramatic poets and Plato, τελέσω from Pindar (Nem. iv. 43), Xenophon and Plato.

There come now the few instances of a contracted future from stems ending in a mute, which according to the view formerly in favour were regarded as futura secunda, viz.:

5) καθεδοῦμαι, Attic future to καθέζεσθαι καθεδεῖ Aristoph. Ran. 200, also in prose. The same stem-expansion is shown in the post-Attic ἕδε-θλον.

6) μαθεῦμαι, a very doubtful reading in Theocr. xi. 60 (cp. Ziegler ad loc.); Ahrens writes μασεῦμαι. The ε could only find a weak support in μεμάθηκα, μαθήσομαι, as everywhere else the long ε appears.

311 7) μαχέονται (cp. p. 269) decidedly as a future Β 366, cp. μαχεῖται Υ 26. The contracted forms are common in the Attic writers from Aeschylus onwards until the Orators. We may compare the aorist μαχέσασθαι in use from Homer onwards, and μαχετέον quoted from Plato. Beside these even Homer has μαχήσεται Σ 265, μαχήσασθαι Ε 483. In

[9] The case is quite the same with the rt. ὀλ; the fut. ὀλέ-σω (ν 399) has been formed from the stem expanded by ε, as well as ὤλεσα, ὀλώλεκα, ὄλεθρος, ὀλέω in Herodotus (ἀπολέει i. 34), ὀλέεσθε Φ 133; ὀλῶ, ὀλοῦμαι in the Attic writers are related to the shorter stem ὀλ as βαλῶ is to βαλ. We can see with especial clearness here how the ε in the future of verbs in λ μ ν ρ comes in contact with unmistakeably stem-forming elements. Cp. above pp. 476, 477.

Herodotus, where previously μαχέσομαι was preferred, even by Bredow, p. 339, Stein now writes μαχήσομαι, e.g. vii. 102. In this verb the added ε undoubtedly promoted the clearness of the tense-formation.

8) τεκεῖσθαι only Hymn. in Ven. 127, while τέξειν, τέξεσθαι are quoted from Homer onwards. Cp. τοκε-τό-ς.

Cobet in the Mnemosyne, New Series ii. 392, has discussed a large number of the futures adduced here and to be adduced hereafter. He assumes that they have lost a σ, and believes he has discovered a well-established rule, at any rate for the stems in ε, with regard to this loss in Homer and Attic writers: 'In quibus verbis ε non in η producitur, si est antepenultima *longa*, σ in futuro non eliditur, ut in ἐπαινέσομαι, αἰδέσομαι, ἀρκέω, νεικέσω, et ἀχθέσομαι, quorum αἰδέσομαι et νεικέσω et ἀρκέσει Homerica sunt. Contra ubi *brevis* est antepenultima, σ ubique summa constantia omittitur.' But the second part of this rule cannot be reconciled with our texts without violent emendations. We have given references above for ἐγκαλέσει, κορέσω, ὀλέσω, τελέσω; ἀρέσεις appears Demosth. xxxix. 33, ἀρέσονται Aesch. Suppl. 655; ἐμέσω is quoted from Hippocrates, whom Cobet possibly might regard as not coming within the range of his assertion. But as the number of all the verbs of the kind is but small, and as we can find no intrinsic reason, i.e. no reason in the formation of the forms, for this rule, there is no sense in adopting numerous alterations to satisfy it, especially as the stems of the same kind in α would adapt themselves still less to such a rule (cp. δικάσω, κολάσω, ἀγοράσω). At most it is somewhat probable that we may assume in the case of the familiar verbs γαμέω, καλέω, τελέω that in Attic writers they formed their future only in this way.

3) From stems in ι.

The futures in -ιῶ, -ιοῦμαι are especially often described by the ancient grammarians as Attic; as by Apollonius Dyscolus de construct. p. 274 (Bekker): τὸν ἀπὸ τῆς Ἀθίδος σχηματισμὸν κατὰ μέλλοντά φασι λυριῶ, by Herodian on Il. Λ 454 (Lentz ii. 806) κτεριοῦσι. ἡ τοιαύτη 312
ὕφεσις τοῦ σ Ἀττική ἐστι καὶ περισπᾷ τοὺς μέλλοντας. But this formation too is not at all limited to Attic, but may be found also in Herodotus and Homer. There are four Homeric instances: ἀγλαϊεῖσθαι Κ 331 (ἐπαγλαϊεῖσθαι Σ 133), ἀεικιῶ Χ 256, κομιῶ ο 546, κτεριοῦσι Λ 454, in Herodotus, if I am not mistaken, eleven: ἀνασκολοπιεῖσθαι iii. 132, ἀτρεμιεῖν viii. 68 (cp. ἀτρεμιεῖσθαι Theogn. 47), ἐναγωνιεῦμαι iii. 83, ἐξανδραποδιεῦνται vi. 9, ἐπισιτιεύμενοι ix. 50, θεσπιέειν viii. 135, καταγιεῖν i. 86, κομιεῖ ii. 121, νομιεῦμεν (Stein νομιοῦμεν) ii. 17, ὀπωριεῦντες iv. 172, χαριεῖσθαι i. 158. More than twenty such forms can be quoted from Attic literature, and it seems superfluous to cite them separately; many, e.g. ἐλπιῶ, σεβιῶ only occur much later, but this may often be due to the accidental nature of our authorities. The following may serve as examples from the best Attic period of verbs originating in different ways: βαδιεῖ Aristoph. Thesm. 617, δειπνιεῖν Diphilus Com. iv. 405, ἐθιοῦσι Xen. Cyr. iii. 3, 53, ἰσχυριεῖται Lys. vi. 35, κουφιεῖς Soph. Ant. 43, μεταχειριεῖται Plato Rep. 410, νοσφιεῖς Eurip. Alc. 43, κατοικτιεῖ Aesch. Suppl. 903, οἰκιοῦντες Thuc. i. 100, προφασιοῦνται Aeschin. iii. 24, ὠστιοῦνται Aristoph. Ach. 24. Futures in -ίσω are not common in the good Attic period: but we have no trustworthy collections on this

point. Two forms of a special kind have still to be mentioned here: καθεῶ and κλιῶ. The former is sufficiently established from Xenophon and Demosthenes: Xen. Anab. ii. l. 4 καθιεῖν (the better MSS., however, have καθισειν), Demosth. xxxix. 11, καθιεῖ, xxiv. 25 καθιεῖτε. καθίζω, in spite of its origin in the rt. ἑδ, has evidently been regarded as a verb in -ίζω, like κομίζω, ἐλπίζω, and treated accordingly. The form κατακλιεῖ is more difficult: we know it only from a fragment quoted by Choeroboscus from Eupolis χρυσοῦν γένος (Meineke Com. ii. 544: cp. Herodian ed. Lentz ii. 809): εἰ μή τις αὐτὴν κατακλιεῖ. The word is explained by the grammarian in Cramer's Anecdota Oxon. iv. 195 by ἀσφαλιεῖ, and treated by all grammarians as a rare future form from κλειω, of which the Old Attic present is κλῄω (cp. p. 249). Joh. Schmidt Vocal. ii. 254 f. has conjectured that this κατακλιεῖ belongs rather to κατακλίνω with the force 'veil, cover up,' attested here and
313 there for κεκλιμένος and ἐκέκλιτο. But though with much acuteness and learning he establishes this meaning for the stems *kli*, *kal* from different regions of speech, and also for Homer (E 356), yet there is no trace whatever in Attic Greek of any such use of κατακλίνω, and in the passage of Eupolis, according to all appearances, the meaning required is that of 'shutting up.' Hence scarcely any course remains except with Meineke to put κατακλιεῖ side by side with δανιῶ or δανειῶ from δανείζω, against which Photius in his Lexicon p. 85, 21 warns us, and to conjecture that the comedian put the form into the mouth of a barbarian. The Doric forms κλᾱξῶ (Theocr.), ἀποκλάξας have been formed on the analogy of the verbs in -ζω. Perhaps there was really a present κλῄζω by the side of κλῄω (cp. Veitch p. 332), and the presumed barbarian meant to say κατακλῃεῖ, which would have some analogy in its favour, but said by itacism κατακλιεῖ.

Now that we have taken a survey of the stock of forms, we have to explain them. Two possibilities here present themselves. Either there never was a σ here, so that all these futures would properly be presents used as futures, or the sign of the future, the sibilant, has been dropped. The first view might seem admissible at any rate for the first two groups; then, as Herodian ii. 809 says, γαμέω, τελέω in their use as futures would be really an ἐνεστὼς ἀντὶ τοῦ μέλλοντος. But such a view is impossible for the third group. Presents like *κομιέω, *ἀγωνιοῦμαι are unknown and without any analogy. Hence no other course remains in the case of the third group but to assume the loss of the σ. And this makes it very probable that the same phonetic process took place also in the verbs of the first and second groups. While, therefore, in my opinion all three groups agree in changing the σ into a breathing, the first two differ from the third in one essential point. βιβῶ has come from βιβάσω, καλέει as a future from καλέσει, that is, both from the usual future form, but κομιέω cannot be explained from κομίσω. It rather presupposes *κομι-σεω. Kühner Ausf. Gr. i². 570 is of a different opinion. He thinks that κομι-έω comes rather from *κομι-εσω. But this assumed intermediate
314 form would find a weak support only in the rare future forms like μαχέσομαι cited on p. 481; and it is still less admissible to presuppose for an intermediate form so deduced the loss of a δ, as Kühner does: *κομιδ-εσω, *κομι εσω, for a loss like this is quite unknown. On the other hand

everything is quite right, as soon as we start from a primitive form *κομι-σεω formed on the Doric analogy. We saw on p. 470 that in Attic writers this formation was not altogether rare, at any rate with middle terminations. From κομι-σέω there came κομι-έω as from τελέ-σω τελέ-ω. This extremely simple explanation is confirmed, I think, by the existing Doric forms like ὀρκιξέω (C. I. i. 1688, l. 13), χαριξιόμεθα (p. 469). The Attic χαριοῦμαι comes therefore from the same primitive form as this χαριξιόμεθα.

As to the loss of the σ, it may surprise some that we have assumed this here without further discussion, while in the case of the aorist a similar procedure appeared improbable. But there another, and, I think, an easier means of explanation presented itself. Besides the aorist is to a much greater extent without duplicate forms with and without σ, which here, especially if we include the Doric dialect, are found in abundance. We cannot deny that there is elsewhere too some fluctuation with regard to σ between vowels, e.g. in the formation of the 2 sing. mid. (-σαι, -σο). By assuming the same phenomenon in the future we can at once understand how even in Homer τελέω can act sometimes as a present, as the product of an earlier τελε(σ)-ϳω, sometimes as a future coming from τελε(σ)-σω. The loss of the σ in contracted forms was evidently favoured by the analogy of the common futures of the verbs with λ μ ν ρ.

C) OTHER FUTURES WITHOUT σ.

We have learnt above (p. 467 ff.) to recognise a series of future forms which were characterised as such by nothing, but which did not, however, coincide with present forms, because the presents of these verbs were on their side distinguished by stem-expansions. Our investigation now brings us back to formations, which externally are extremely like those forms, but which are distinguished from them by the fact that the future is here often completely identical in form with a present in more or less frequent use. There are not many verbs which come under 315
this head, and it is a question whether all can be explained in the same way.

In Homer there are three futures, resembling presents, in -νω, viz.:

ἀνύω, which may indeed in Δ 56 οὐκ ἀνύω φθονεουσ' be very well taken as a genuine present, but in the compound ἐξανύω Λ 365 ἦ θήν σ' ἐξανύω γε καὶ ὕστερον ἀντιβολήσας (=Υ 452) points more decidedly to the future, though this might have been denoted as in π 373 by ἀνύσσεσθαι from the same stem.

ἐρύουσι Λ 454

> ἆ δεῖλ', οὐ μέν σοί γε πατὴρ καὶ πότνια μήτηρ
> ὄσσε καθαιρήσουσι θανόντι περ, ἀλλ' οἰωνοί
> ὠμησταὶ ἐρύουσι . . .

Cp. Ο 351 ἀλλὰ κύνες ἐρύουσι, Χ 67.

The best ancient grammarians assumed here present forms with a future force: thus Aristonicus on Χ 67: ἡ διπλῆ ὅτι χρόνος ἤλλακται, ἀντὶ τοῦ ἐρύσουσιν καὶ ἐν Ὀδυσσείᾳ νευρὴν ἐντανύειν (φ 97, 127) ἀντὶ τοῦ ἐντανύσειν and Herodian on Λ 454 ἐρύουσι. προπαροξύνεται· ἐνήλλακται

γὰρ ὁ ἐνεστὼς χρόνος ἀντὶ μέλλοντος. οὕτως καὶ Ἀρίσταρχος· ὁ δὲ Ἀλεξίων περισπᾶ. οὐκ εὖ.

ἐντανύειν in the two passages already cited from ϕ and also ϕ 174. Why La Roche ϕ 97 and 127 (after *ἔλπομαι*) against Aristarchus and good M.SS. writes *ἐντανύσειν*, and in the third passage *τανύουσι* (*ἀλλ' ἄλλοι τανύουσι τάχα*) I cannot understand.

There is also

νέομαι Σ 101 [=Ψ 150] *νῦν δ' ἐπεὶ οὐ νέομαί γε φίλην ἐς πατρίδα γαῖαν*, Σ 136 *ἠῶθεν γὰρ νεῦμαι*, δ 633 *ὁππότε Τηλέμαχος νεῖται*, ξ 152 *ὡς νεῖται Ὀδυσεύς*. [Cp. La Roche on Ξ 505.]

The Attic dialect has a similar instance in the future use of *χέω* and *χέομαι* (cp. Elmsley Review of Hermann's Supplices on v. 772, Eurip. Supplices Lips. 1822, p. 254). Certain instances are found in

Eur. Suppl. 773

ἀλλ' εἶμ', ἐπαρῶ χεῖρ' ἀπαντήσας νεκροῖς
Ἅιδου δὲ μολπὰς ἐκχέω δακρυρρόους

Fragm. 388 Dind.

κάρα τε γάρ σου συγχέω κόμαις ὁμοῦ
ῥανῶ τε πεδόσ' ἐγκέφαλον

316 Aristoph. Pax 169

κἀπιφυτεύσεις ἕρπυλλον ἄνω
καὶ μύρον ἐπιχεῖς

Plato Com. (Meineke Com. ii. 637) *ἐγὼ δὲ*

λίτρον (?) παραχέων ἔρχομαι, κἀγὼ δὲ παρακορήσων

Isaeus vi. 51 *ἐπὶ τὰ μνήματα ἰέναι χεόμενον καὶ ἐναγιοῦντα*. Whether the language of Homer possesses a future-present *χεύω* corresponding to this is doubtful, for *χεύομεν* Η 336, and of course also *χεύω* β 222, may be the conjunctive of the aorist.

A very unique Cretan form of the same kind is found in the 3 plur. *ἀναγνώοντι* C. I. no. 2554, l. 39, *εἰ δὲ μὴ ἐξορκι[ξ]όντι οἱ Λάτιοι κόσμοι ἢ μὴ παραγγελ[έ]οντι ἐπὶ τὰν ἀνάγνωσιν τᾶς συνθήκας, ἢ μὴ ἀναγνώοντι, ἀποτεισάντων . . .* and again in l. 45. Boeckh took the form to be a future with the *σ* lost, Ahrens Dor. 339 to be an aorist conjunctive, but this does not fit in with the futures of the context. We must not indeed forget that we have no very satisfactory guarantee for the exact reproduction of the whole inscription.

There remains finally the Old Attic *σώω* : C. I. A. i. 2 B. l. 7 *καὶ τὰ κοινὰ τὰ Σκαμβωνιδῶν ΣΟΟ καὶ ἀποδώσω*. On this form, which is undoubtedly used in a future sense, I can now refer to the well-considered discussion by Cauer Stud. viii. 416 ff.

Now what opinion are we to form upon these cases? For the four Homeric forms the rejection of a *σ* is just as possible, as for those previously quoted, but who can believe it possible that the same loss has happened to *ἀναγνώοντι* and *σώω*. Even if on the analogy of *ἐξόντι*, *κοψόντι* we should adopt the accentuation *ἀναγνωόντι*, there would still be no analogy for the rejection of the *σ* in the Doric form. Buttmann Ausf. Gr. ii.[2] 296 does indeed maintain this for *σώω*, but Lobeck on this passage justly describes this as 'very improbable.' It would be easier

to approve the attempt (v. Bamberg Ztschr. f. Gymnasialwesen 1874 p. 619) to take σωῶ with this accentuation as an Attic future, as we have clear traces of the spelling σῴζω, if this very ι, which was all that was capable of bringing in the analogy of the presents in -ιζω, was not absolutely wanting in the form σώω. But Cauer l. c. has now shown that σώω in 317
Homer several times approximates to the force of a future, for which ι 430 ἴτην σώοντες ἑταίρους is especially to be noticed. Hence I regard it as proved that σώω belongs to the present forms used as futures.

The same must undoubtedly be assumed in the case of χέω. It is quite astonishing to find that an investigator like Buttmann (Ausf. Gr. ii.[2] 325) thinks it possible that χέω may have originated in *χέσω. The ευ of χεύω as a conj. aor. and the υ of κέχυμαι etc. ought at least to have made him hesitate. The parallel with τελέω is quite erroneous and cannot be at all supported by late and possibly not even well-established formations like ἐχέθην. If χέω had lost an σ, there would be no alternative but to assume the following as the successive stages of the corruption: *χεύ-σω *χεύ-ω *χέϝ-ω, χέω, and a fifth stage would be furnished by contracted forms like ἐπιχεῖς. Who can accept this as credible? I may refer rather to what was said on p. 461 on the occasion presented by the aorist ἔχεα. In its formation χέω for *χεϝω is certainly a present. The coincidence of the two tenses is, as I suppose, to be explained, much as in the case of τελέω and καλέω, by assuming that the form χέω destined exclusively to express the present goes back to an earlier χείω (ἐγχείῃ ι 10), the future χέω to *χεϝω. This χείω is in any case parallel to the forms πλείω and πνείω mentioned on p. 156. The less expanded present form was retained for use as a future.

If we now look back from these cases to those which remain, we may really doubt whether in these there has been anywhere a loss of the σ. I believe that there is no certain criterion in ἀνύω, ἐρύουσι, ἐντανύειν, νέομαι (cp. νίσσομαι i.e. νεσ-jo-μαι) to decide the question definitely in one way or the other. Even for the futures with α-stems cited on p. 479 f. it would be possible in some instances with similar probability to assert a purely present formation. For instance, ἐλῶ as a future might be related to ἐλαύνω, κορέει to κορέννυμι, ἀναπετῶ to ἀναπετάννυμι much as πίομαι is to πίνω. But as forms like τενῶ and κομιῶ, which can be understood only as from *τενέσω, *κομισέω prove the loss of the σ within a certain circle to be a fact, we preferred on p. 482 the same explanation 318
for these too. In conclusion it is best to lay it down that there are three kinds of futures with a formation resembling that of the present:

1) Such as, by the side of an actual use as presents, take also the force of futures e.g. εἶμι, σώω,

2) Such as have ceased to be used as presents, and only act as futures: ἔδομαι, πίομαι,

3) Such as, in consequence of the rejection of spirants, either like καλέω coincide with the present form at a relatively not very ancient date, or like τενέω, βιβῶ have exclusively the force of a future by the side of a present characterised in a quite different manner.

III. MOODS AND VERBAL NOUNS OF THE FUTURE.

The optative of the future, which is employed only in a subordinate clause depending on a past tense, is, as we saw on p. 6, quite unknown

to the language of Homer, where scarcely any opportunity for its use presented itself. Perhaps Pind. Pyth. ix. 116

σὺν δ' ἀέθλοις ἐκέλευσεν διακρῖναι σέθεν
ἄντινα σχήσοι τις ἡρώων

is the earliest instance of the use of this mood, which we find afterwards in the tragedians, e.g. Aesch. Pers. 369 (*φευξοίατ'*), Soph. O. T. 1274 ff. (*ὕψοιντο, ὑψοίαθ', γνωσοίατο*), Philoct. 612 (*πέρσοιεν*), in Herodotus e.g. i. 127 *ἐκέλευε ἀπαγγέλλειν ὅτι πρότερον ἥξοι* (v. l. *ἥξει*), more commonly first in Attic prose, in Thucydides e.g. vi. 30 (*κτήσοιντο*), 74 (*φεύξοιτο*), Isocrates (*εἰςπλευσοίμην* xvii. 9), Plato, Xenophon, and Demosthenes (xxxi. 2). This mood-form never became very usual, owing to its restricted application.

But the verbal nouns are on the contrary very common. Like the optative they are evidently formed entirely on the analogy of the present. It will be sufficient here to quote Homeric forms, which occur in great abundance, e.g. *ἀξέμεναι* Ψ 50, *αἱρησέμεν* P 488, *χραισμησέμεν* Φ 316, *γηθήσειν* N 416, *εὐφρανέειν* E 688, *ἐκτελέειν* κ 27—*αἰτήσων* ρ 365, *παύσουσα* A 207, *ἀγγελέοντα* P 701, *ἀποστρέψοντας* K 355, *ἐρέοντε* π 334—*ἀφαιρήσεσθαι* A 161, *δείσεσθαι* O 299, *κρανέεσθαι* I 626, *ἀπολεῖσθαι*
319 Θ 246—*λυσόμενος* A 13, *ὀψόμεναι* Σ 141. Future infinitives and participles belong to the indispensable stores of the Greeks from the earliest times to the latest.

Finally we may say two words upon the familiar idiom, that so many active verbs form their future in the middle voice without any difference of meaning. Lists of such futures are given by Buttmann Ausf. Gr. ii.[2] 85, Kühner Ausf. Gr. i.[2] 684.[1] The latter in ii.[2] 91 attempts an explanation of this strange proceeding. Verbs, which denote intellectual or physical perception, had (he says) not uncommonly by the side of the active a middle inflexion also, without any essential alteration of the meaning, e.g. *ἀκούετο* Δ 331, *ὁρᾶτο* A 56. From this he thinks we can explain the usage referred to, especially as it is a question almost exclusively of verbs 'which denote the expression of a physical or intellectual activity.' Kühner goes on to say 'the notion of futurity is really only something subjective, existing only in imagination.' But unfortunately the attempted limitation of the meaning of the verbs which are in question is much too elastic, and by the addition of 'almost' it is made still more indefinite. It would indeed be very difficult to find any meaning shared in common by futures like *ἀπαντήσομαι, ἀπολαύσομαι, γελάσομαι, γηράσομαι, ἔδομαι, τεύξομαι, χεσοῦμαι.* The question is transferred into an entirely different region, when Kühner thinks he can further find something subjective in the category of future action generally, which has some internal connexion with the middle action which is ruled in a higher degree by the subject. But the latter notion is evidently based upon a confusion of very different things. The speaker cannot of course speak of the future with objective certainty, but only in the form of subjective conjecture; and that is why the potential approximates to

[1] Krüger Sprachlehre § 39, 12 gives a list of verbs which in the usage of the Attic writers more or less positively form their futures in the middle voice. [Farrar, Brief Greek Syntax § 90, points out how several of these middle futures correspond to reflexive verbs in French.]

the future. But the middle is just as definite a form of expression as the active. Hence while it is quite right to compare ἀκούσομαι with the Homeric use of ἀκούετο, e.g. ἀκούετο λαὸς ἀϋτῆς, we cannot speak in 320
either case of subjectivity or 'mere imagination.' The future can be 'mere imagination' at most for the speaker, that is for myself, if I say ἀκούσεται, while the middle form expresses a fuller participation of the third person referred to as the subject of the action. Hence I doubt whether we can find any sufficient reason for the 'elective affinity' between the future and the middle: and I am afraid that we must content ourselves with the fact that the active and the middle are separated by very slight boundary lines. In consequence of this slight distinction, which often is so delicate that it can only be detected by instinctive feeling, at a very early period active and middle divided themselves upon different tenses in a number of very common verbs; and the middle form especially settled on the future. A number of others afterwards followed the example of these. It is no more possible to determine them by their meaning, than e.g. to lay down any distinction of meaning in modern languages for the use to 'be' and 'have' as auxiliary verbs. Naturally there is here too no lack of deviations from the rule, upon which we cannot enter here. Perhaps the one fact, that εἰμί has only the middle future ἔσομαι, to which we have referred on p. 435 under the head of the future perfect, has had greater influence on the other verbs, than might have been supposed.

CHAPTER XIX.

THE PASSIVE STEMS.

As the two tense-stems discussed in Chaps. XVII. and XVIII. stand unmistakeably in a closer affinity one to the other, so the two groups of passive stems again form a common division in the great whole of the Greek verb. They share in the first place the negative characteristic, that they have nothing quite corresponding in any one of the cognate
321 languages, and are therefore undoubtedly to be regarded as essentially a recent formation of the Greek language. They are further united by their identical force, that of the passive, which in all other instances attaches only to the middle endings, but here is in part united with active personal endings. Finally we must notice the inflected *e* which runs through both after the fashion of the unthematic conjugation, and by which the passive aorists receive their peculiar stamp. Hence we have to do unmistakeably with a pair of stems, the parallelism of which could not escape even the Greeks, and the development of which had a mutual influence on both sides. It is in the case of this pair of equivalent creations that there is most sense in the old terminology which denoted tenses by means of numbers. For it is not very uncommon here to find both in use at the same time, e.g. *ἐμίγην* and *ἐμίχθην*; and it is not altogether preposterous here to denote the rarer form as the second, the more common as the first, as the former cannot by any means always lay claim to greater antiquity. Still it is better here too to replace numbers which signify nothing by definite names. Hence, reserving the expressions 'strong' and 'weak' for the grammar of schools, I call the one passive stem that in *-η*, the other that in *-θη*. But as shorter terms are sometimes indispensable, I occasionally describe the former as the lighter, the latter as the heavier.

We shall in the first place discuss the peculiarities common to both passive-stems, and then examine the forms of each stem according to their occurrence and origin.

The *e* at the end of both passive stems is treated throughout just as in the so-called Aeolic inflexion of the derived verbs in *-η-μι* (=*-ε-ω*). Compare Hom. *φανή-την* with *ὁμαρτή-την*, *δαήμεναι* with *καλήμεναι*, *δμηθείς* with Aeol. *φίλεις*. In discussing the moods above pp. 314, 319, 329 etc. we were therefore able to examine at the same time forms like *δαμήετε*, *τραπείομεν*, *μιγείης* etc. It results from this that the *ε*, originating from contraction (cp. p. 247) is essentially long, and is shortened only under the conditions examined on p. 135. In this respect the iterative formation *φάνε-σκε-ν* Λ 64, belonging to *ἐ-φάνη-ν*, is instructive. The two consonants here gave occasion for the shortening.
322 Hence the *ε* of *φανείην*, *δμηθέντος* has no greater claim to be considered original than that of *φιλείην*, *φίλεντος*, and we must regard, not *φανε*

φιλε μιχθε, but φαν-η, φιλη, μιχθη as the true stems. Compared with primitive forms like θές, δός, the long vowel in the passive stems holds its place more obstinately, as is shown by φάνηθι, φανήτω, λυθῆναι. The very close resemblance of the passive stems to the derived ε-stems of the more archaic inflexion makes it probable that both belong, so far as the form impressed upon them goes, to the same period of language, i.e. to that in which the thematic vowel in its ordinary form had not as yet been united with the contracted theme in η which had been inherited from an earlier period. We saw on p. 246 f. that to understand φιλέω we must start from an earlier *φιλήεμι, φίλη-μι. At a time when φίλημι, ἐφίλην 3 plur. ἔφιλεν (or ἐφίλεν?) φιλήμεναι, φίλεις were not yet limited to the Aeolic dialect, ἐφάνην and ἐτέθην with their moods and verbal nouns must have been formed. We shall come back to this point in the course of the present chapter and try to determine its importance for the history of the developement of these forms.

For the indicative of the two passive stems we have first to take into consideration the quantity of the *e*, and the different formation of the 3 plur. It might appear at first sight that a trace of the long *e* before the termination -ν(τ) of the 3 plur. had been preserved in the entirely unique μιάνθην αἵματι μηροί (Δ 146). The scholiasts B L took μιάνθην to be a 'δυικὸν ἐκ συγκοπῆς,' a dual form shortened from μιανθήτην; but no one will be willing to accept this view. Buttmann Ausf. Gr. ii.[2] 244 saw in it an aoristic dual form of the middle from a stem μιαν formed according to the rules of the primitive inflexion. As δέκ-το comes from the rt. δεκ, so we might imagine a form *μίαν-το as a 3 sing. aor. mid., and μιάν-θην (for *μιαν-σθην, cp. δέχ-θαι) would be the corresponding second person dual. But there are several objections to this too, and it is hard to make up our minds to regard this form as differing in principle from μιάνθησαν which occurs in exactly the same sense at Π 795. Hence I consider it best with Ahrens (Conjug. auf μι p. 36) to write μίανθεν,[1] but not as though the 'bucolic caesura' produced the 323
length of the syllable, for what was so regarded is better explained as original length; I suppose rather that μίανθεν retained the old length of position in the final syllable even in thesis. This principle of explanation is recognized by Hartel Hom. Stud. i.[2] 111, at any rate in cases of arsis, with reference to ἔφαν and certain other forms of the kind. For we cannot really believe that the original η retained its natural length unimpaired in this isolated instance before ντ and the later νν, ν.

The regular forms of the 3 plur. in -εν are far more common in Homer than the longer ones in -ησαν. Against 46 forms in -εν, e.g. ἄγεν, δάμεν, διέτμαγεν, κόσμηθεν, πῆχθεν, τάννυσθεν, there are only 15 in -ησαν, e.g. μίγησαν (beside μίγεν), τάρπησαν, ἐχάρησαν, ἠΐχθησαν, θωρήχθησαν. On the other hand in the language of later poets the shorter formation is an archaism, used here and there. From Pindar Peter de dial. Pindari p. 59 cites 16 forms of the kind, e.g. βλάβεν Nem. vii. 18, ἔφθαρεν Pyth. iii. 36, ὀνόμασθεν Ol. ix. 46, ἔμιχθεν Isthm. ii. 29. For the dramatic poets I may refer to Gerth Stud. i. 2, 257. There are well-established instances in Eur. Hippol. 1247 ἔκρυφθεν, Arist. Pax 1283 ἐκόρεσθεν, Vesp. 662 κατένασθεν: hence in Soph. Antig. 973 for

[1 μίανθεν is actually found in one M.S. Cp. La Roche ad loc. who reminds us of the fact that the early alphabet had only one sign for E and H.]

the τυφλωθέν of the M.SS. I have conjectured τύφλωθεν. We may quote also ἐφίληθεν (or ἐφίλαθεν) Theocr. vii. 60. For the shorter forms it is of importance to notice that they occur also on Doric inscriptions, where we may give them the Doric accentuation: διελέγεν C. I. G. 3050 l. 7, 3052 l. 10, for which in 3048, l. 8, certainly only from oversight, διελέγην has been written, which Boeckh with Buttmann alters into διελέγεν. κατεδικάσθεν Tab. Heracl. i. 122, 143, διελέχθεν treaty between the Cretan towns Hierapytna and Lyttus (Naber Mnemos. i. 105 l. 13). From Archimedes Ahrens Dor. 317 quotes κατέγνωσθεν, συνεξέδοθεν, ἔτεθεν. It is therefore well established that the Dorians made use of such forms even in prose.—Forms like ἐρήτυθεν, κόσμηθεν are quoted as Boeotian, and occasionally also as Aeolic, i.e. Lesbian Aeolic by grammarians (Ahrens Aeol. 211). That the longer forms were not unknown to the Asiatic Aeolians is proved by ἐστάθησαν Sappho fr. 53 Be.[3] We have an instance of a Doric form of the same kind from inscriptions in διελέγησαν C. I. 3047, l. 7. Evidently the two formations were both in use before
324 the dialects parted off. In the Attic writers and in Herodotus it was only the longer ones which became established.

Except in the 3 plur. the traces of shortening are very uncertain. The ancient grammarians, as Boeckh conjectures in the notae criticae on Pind. Pyth. iv. 115, regarded the Homeric forms ἐτραφέτην E 555, τραφέμεν Η 199, Σ 436, γ 28 as shortened. But the intransitive use of the active aorist ἔτραφον is completely established (cp. above p. 287), so that we are even tempted to doubt with Buttmann (Ausf. Gr. ii.[2] 307) whether the form ἐτράφην later in use is not to be denied to the language of Homer. For the active forms may always be restored by slight alterations, sometimes supported by traces in our authorities (e.g. Ψ 84 supported by Aeschines c. Tim. § 149).—Besides these probably the only word that can be quoted is στερθέμεν· στερηθῆναι Hesych. But the authority for this is too doubtful to carry much weight.

Of the moods the imperative of the lighter passive stem is represented in Homer only by φάνηθι Σ 198, φανήτω ν 101, while of imperatives of the other form there are 7 examples, as αἰδέσθητε β 65, κατακοιμηθήτω I 427, σαωθήτω P 228.—Conjunctives like δαείω (or δαήω) K 425, φανήῃ T 375, δαῶμεν B 299, χολωθῇς I 33, ἰανθῇ χ 59, πειρηθῶμεν X 381, πειρηθῆτον K 444, optatives like τυπείης N 288, πειρηθείης Λ 386, διακρινθεῖτε Γ 102, and infinitives like δαήμεναι Z 150 and δαμῆναι N 98, ἀριθμηθήμεναι B 124, μνησθῆναι δ 118 hardly need any further discussion, still less do the extremely numerous participial forms like ἀλείς Π 403, πληγέντε Θ 455, μιχθείς Γ 48, ῥεχθέντος I 250.

The lighter passive future is represented in Homer only by δαήσεαι[2] γ 187, τ 325, μιγήσεσθαι K 365. Instances of the heavier are entirely wanting. It is noteworthy that the Dorians do not exclude the active personal endings for these futures (Ahrens Dor. 289), e.g. συναχθησοῦντι C. I. 2448, i. 25, ωατωθησῶ· ἀκούσομαι Hesych. [Phot. and Suid. add Δωριεῖς], φανησεῖν Archimed. beside δειχθήσεται and the like. This
325 peculiarity is connected with the similar phenomenon in the case of the futurum exactum discussed above on p. 436.

Finally we may mention a pair of remarkable deviations in the Dorian and Aeolian dialects. To these belongs the Heraclean conjunctive

[2] This form was not included on p. 5 because the meaning is not at all passive, but in formation it decidedly belongs to this category.

ἐγ-ϝηληθίωντι=*ἐξειληθῶσι* (Tab. Heracl. i. 152) where *ε* as often (cp. Cret. *ἴωμες*=Homer. *ἔωμεν*) is replaced by *ι*. But it was very unexpected to find in the decree of the honours of Damokrater, dug up at Olympia (Archäol. Ztg. 1876 p. 1 ff.) the three passive forms with *ᾱ*: *ἀνατεθᾷ*, *δοθᾷ*, *ἀποσταλᾶμεν* l. 32, 35, 37 by the side of *γραφέν* l. 31. There can be no doubt therefore that the *ᾱ* as an older phase of *η* was not rejected in this place either. This fact throws new light upon isolated forms with *α*, which crop up elsewhere, e.g. *ἐτύπᾱν*, which is found in some M.SS. in Theocr. iv. 53, but is generally replaced by *ἐτύπην*, and *ἀπεσσούα* given as Laconian [Xen. Hell. i. 1, 23] = **ἀπεσσύη* (Ahrens Dor. 147).

I. THE PASSIVE STEM IN *-η*.

It will be necessary to state somewhat more exactly what the language possessed in the way of these stems. For this purpose we make three divisions, Homeric, Attic and non-Attic forms.

Of Homeric passive stems of this kind there are 22 or 23. I give some references for each of them :

ἄγη (*ᾰ*) Γ 367, *ἐάγη* Λ 559, 3 plur. *ἄγεν* Δ 214 (*κατεάγη* Arist. Vesp. 1428).

ἐάλη (*ᾰ*) N 408, 3 plur. *ἅλεν* X 12.

ἔβλαβεν Ψ 461, *βλάβεν* Ψ 545, also Attic (Aesch. Thuc. Aristoph.).

ἀνα-βροχέν only λ 586.

ἐ-δάην Γ 208, *δαῶμεν* B 299, *δαῆναι* δ 493, also in Theogn. Pind. and the tragedians.

δάμη I 545, *ἐδάμημεν* N 812, *δάμεν* Θ 344 etc. also in Pindar and Attic poets.

θερέω only ρ 23.

ἑκάη A 464, B 427, *καήμεναι* Ψ 210, *κατακαῆναι* also in Herodotus ii. 107.

λίπεν Π 507, *ἐπεὶ λίπεν ἅρματ' ἀνάκτων*, the reading of Aristarchus '*ἀνάλογον τοῦ ἐλείφθησαν*,' while Zenodotus read *λίπον*, which presents 326 difficulties. *ἀπολιπῆναι* does not make its apppearance before Dio Cassius.

μίγη E 143, *ἐμίγην* Γ 445, *μιγέωσι* B 475, *μιγήμεναι* Z 161 etc. also in Herodotus and Attic writers.

πάγη Δ 185, *πάγεν* Λ 572, *παγέν* Plat. Tim. 59.

κατ-επλήγη Γ 31, *πληγείς* Θ 12, also in Herodotus and Attic writers.

ὑπ-ερράγη Θ 558, Π 300, *ἐρράγη* also in Herodotus and Attic poets.

ῥύη γ 455, also Attic.

σαπήῃ T 27, *σαπῇ* Herod., other forms of the stem in Attic writers.

τάρπημεν Λ 780, *ἐταρπήτην* ψ 300, *τραπείομεν* Γ 441, *ταρπήμεναι* Ω 3.

τερσήμεναι ζ 98, *τερσῆναι* Π 519.

τμάγεν Π 374, *δι-έτμαγεν* Α 531.

τράφη Λ 222, cp. above p. 488, also in Pindar, Herodotus, and Attic writers.

δια-τρυφέν Γ 363.

ἐ-τύπη Ω 421, *τυπείης* N 288, *τυπείς* Λ 191, also in Pindar and Attic poets.

φάνη A 477, *φάνημεν* ι 466, *φανήτην* H 7 etc., common in later times.

ἐ-χάρη Γ 23, *ἐχάρησαν* Γ 111, *χαρέντες* K 541, also in Pindar, Herodotus, Euripides, Aristophanes, Plato Rep. 606.

There are further the following 35 additional from the Attic period, many of which make their appearance as early as Herodotus:

ἐξ-αλιφῇ Plat. Phaedr. 258.

ἀλλαγῆναι common Attic, *ἐξαπαλλαγῇ* Thuc. iv. 28, *ἀπαλλαγήσομαι* Herod. ii. 120, Thuc. This is the only Attic instance of a lighter passive formation from a stem decidedly derived.

βαφῇ Plato Rep. 429.

βραχεῖσα Aristot. Probl. 12, 3.

γραφῆναι Herod. iv. 91, Thuc. Plat. Dem. Cp. *ἀναγραφῆμεν* Cret. inscr. Naber Mnemos. i. 114 ff.

ἐκδαρέντα Herod. vii. 26, *ἀποδαρέντα* Xen. Anab. iii. 5, 9.

327 *ἐζύγην* Pindar, Tragedians, Plato.

θλιβῆναι Aristot.

κλαπέντες Plato Rep. 413, *τὸ διακλαπέν* Thuc. vii. 85, *ἐξεκλάπησαν* Xen. Hell. v. 4, 12.

κατα-κλιν-ῆναι Aristoph. Lys. 904, Plato, Xenophon.

κοπεῖσαν Aesch. Ag. 1278, *ἐξεκόπη* Aristoph. Nub. 24, Herod. Thucyd., *συγκοπήσεται* Lys. iii. 34

κρυφείς Soph. Aj. 1145, *κρυφήσονται* (M.SS. *κρυβήσονται*) Eur. Suppl. 543 Elmsley.

ἐκ-λαπῆναι Aristoph. fr. 211 Dind.

ξυν-ε-λέγημεν Aristoph. Eccl. 116, *καταλεγῆναι* Lys. xxx. 8, also Thuc. Plat. Isocr. *διαλεγῆναι* corresponding to *διαλέγεσθαι* first in Aristot. Eth. M. i. 29.

ἐκ-μαγῆναι Plat. Thaeaet. 191.

ἐ-μάνητε Eurip. Bacch. 1296 and corresponding forms elsewhere in poetry and prose.

κατ-ορυχησόμεθα Aristoph. Av. 394.

συμ-πλακῇ Demosth. ii. 21, *συμπλακείς* Soph. fr. 548 etc.

ἀπο-πνιγεῖεν Xen. Cyr. viii. 2, 21, *ἀπο-πνιγήσομαι* Aristoph. Nub. 1504.

ῥαφῆναι Demosth. liv. 41.

ῥιφῆναι Plato, *ἐξερρίφη* Aeschines ii. 153.

ἐ-σπάρην Soph. O. R. 1498.

ἐ-στέρην στερείς Eur. Alc. 622, Hec. 623, with *στερήσομαι* Soph. El. 1210, Thuc. iii. 2.

ἐστράφην Solon fr. 37, 6, Hdt. Soph. Attic prose.

σφαγείς Aesch. Eumen. 305, *κατεσφάγη* Xen. Anab. iv. 1, 23 etc.

σφαλῆναι from Aeschylus onwards in poetry and prose: Soph. Aj. 1136, *σφαλήσεσθε* Thuc. v. 113.

ὑπο-ταγείς Phrynichus Com. ii. 603, then in post-Attic prose (Plutarch); cp. Nauck Bulletin de l'acad. de St. Pétersb. xx. p. 506.

τακῆναι in tragedians (Soph. Tr. 463) and Plato (Phaedr. 251).

ταφῆναι from Aesch. onwards (Sept. 1021).

ἐ-τράπην ditto (Aesch. Pers. 1027).

ἐπι-τριβῆναι Aristoph. Nub. 1407, cp. Demosth. xviii. 194 etc.

ἐπι-τυφῇ Aristoph. Lys. 221, *ἐκτυφήσομαι* in other comic writers. 328

ἐ-φθάρην from Pindar (Pyth. iii. 36) onwards in tragedians, Herodotus and Thucydides.

φυῇ Plato Rep. 494.

ψυχῆναι Aristoph. Nub. 151, Plat. Phaedr. 242.

Besides these there are 32 more passive stems of this kind, which occur either only as quite unique in older non-Attic writers, or like *ἀπολιπῆναι* in Dio Cassius, only in the post-Attic literature, or are quoted only by Hesychius. Of these we may notice the following:

γηρέντος Xenophanes (fr. 8 Be.[3]) according to Herodian ii. 829, and E. M. 230, 50

ἀνδρὸς γηρέντος πολλὸν ἀφαυρότερος.

γναφῆναι· κλασθῆναι, κναμφθῆναι Hesych. Cp. Homer. *ἐπι-γναμφθῆναι.*

δρακέντες Pind. Nem. vii. 3, *δρακεῖσα* Pind. Pyth. ii. 20.

ἐριπέντι Pind. Ol. ii. 43.

καρῇ Herod. iv. 127.

ἀνα-παρείς ib. iv. 94: cp. *ἐπάρη· ἐκεντήθη* Hesych.

And as instances of later imitative formations

ἀγγελῆναι Plut., now banished from Eur. Iph. Taur. 932.

ἐπάην καὶ ἀνεπάην ἐν τῇ συνηθείᾳ Choeroboscus, Lentz Herodian ii. 800, *ἀναπαήσονται* N. T.

ἐφλέγην Dion. Hal., Luc. etc.

The total number therefore amounts to 89. We can plainly see the gradual developement of this formation, which however by its very nature could never attain to the wide extension of the second. A glance at our lists of the thematic aorist forms (above p. 283 ff.) shows considerable chronological differences. It may be further noticed that the future in the post-Homeric time is tolerably extensively formed from the stock of these stems once in existence. As Attic futures of the kind in addition to those already incidentally mentioned we find: *βλαβήσομαι* Plat., Isocr., *μετεγγραφήσεται* Aristoph. Equ. 1370, *κατακλινήσομαι* Aristoph. Plat., *συλλεγησόμενος* Aeschin. iii. 100, *παγήσεται* Ar. Vesp. 437, *ἐκπλαγήσομαι* Herod., Thuc. the Orators, *ἐκραγήσονται* Aesch. Prom. 367, *εἰρνήεσθαι* Isocr. viii. 140, *κατασαπήσεται* Plat., *ἀποσφαγήσοιντο* 329 Xenoph. Hell. iii. 1, 27, *ἐκτριβήσεται* Soph. O. T. 428, *φανήσομαι, διαφθαρήσομαι.*

As to the vocalism, the stem-syllable of these passive stems shows a preference like that which we noticed on p. 278 above in the case of the thematic aorist, for the vowel *α*. 28 of the lighter passive stems have an *α* belonging to the root, e.g. *ἀγη, βαφη, γραφη, μανη, χαρη*, 14 have *α* by the side of an *ε* in the root, e.g. *ἀλη, δαρη, κλαπη, πλακη*,[3] *ταρπη*, only 5 retain the *ε*: *ἀγγελη, θερη, λεγη, τερση, φλεγη*, *ο* appears only in *ἀναβροχέν, ἐκόπην*, *ι* is represented by 12 instances e.g. *ἀλιφη, ἐριπη, κλινη, μιγη*, *υ* by 16 e.g. *γλυφη, ζυγη, ῥυη, ψυχη*. The long vowel in the above-mentioned *γηρείς* is quite abnormal: so are the diphthongs of the un-Attic forms: *ἠνοίγην*, Christ. pat. 996, *ἀνοιγήσομαι* LXX, and of

[3] *ἐπλέκην* occurs very often in the M.SS. as a variant for *ἐπλάκην*. In Polyb. iii. 73 *συνεπλέκησαν* has been accepted by Bekker and Hultsch. Cp. *καταπλεκεῖσι· συνδεθεῖσι, περιπεπλεγμένοις* Hesych.

ξυνεξερευθείην quoted from Hippocrates, though the authority for the last is but weak. The short vowel in the stem-syllable is as a rule as much liked in the lighter passive stem as in the thematic aorists.

Roots ending in a vowel do not form stems of the kind, as is easily intelligible. Four roots in ν are exceptions: δν (διεκδυῆναι Hippocr.) πτυ (πτυῆναι Hippocr.) ῥν, φυ, and also the poetical δα (δαῆναι) where perhaps as in καῆναι (stem καυ, καϝ[4]) a spirant has been lost. The most various consonants are found before the η, but, curiously enough, never δ. The most common is γ, e.g. in ἀγη, ζυγη, λεγη, ῥαγη. In later Greek this intruded itself also into the place of χ in ὀρυγῆναι, ἀναπτυγῆναι (Hippocr.), ψυγῆναι, and corresponding to this we find at this late date κρυβῆναι beside κρυφῆναι. Lobeck discusses these cases on Soph. Aj. v. 1145: cp. Principles ii. 141.

We come now to the difficult question of the origin of this stem, for which, as already mentioned, we are quite without the help of a clearly corresponding form in any other language. In my Tempora und Modi p. 330 I explained the lighter passive stem as from the rt. *ja* (Skt. *jā*)
330 go, the same as that which I considered to be the source of the present formation in *-ja* (p. 206 f.) and the Sanskrit passive suffix *-ja*. The close connexion of the Indian passive with the present expansion, which even in the case of active terminations is not unfrequently associated with an intransitive or even a passive force, has been confirmed by Delbrück's Altindisches Verbum p. 166 ff. In the same way the use of the Latin *ire* in a passive sense (e.g. *venum ire*) serves to strengthen the hypothesis that a verb of going is at the bottom of this passive formation. My explanation, though put forward even by myself with some reserve, has found acceptance with several writers. Voretzsch de inscriptione Cretensi (Halis 1862) thought he had found a confirmation of it in the gloss of Hesychius ἐλαχία· ἐδάρη Κρῆτες. He takes ἐ-λαχ-ία as the 3 sing. of a passive aorist from the rt. λαχ, which he regards as identical with that of the common Greek ῥάσσειν strike, smite, and he thinks that the assumed *j* of the rt. *ja* has been preserved here in the form of the vowel ι. Such a confirmation of my previous view, based on original authorities, would be very attractive to me; but although the ᾱ of this form has now found support in the Elean form quoted on p. 491, I cannot make any use of it. Even if the explanation of this completely isolated ἐλαχία as a passive aorist should be admitted to be correct, it would not be by any means certain that ι here represented a *j*, for in the Cretan dialect this vowel before other vowels has not uncommonly originated from ε, e.g. in ἴωμες=Homer. ἔωμεν, in τίριος=Att. θέρεος (Helbig de dial. Cret. p. 25). Hence ἐλαχία might very well have come from *ἐλαχέα.

As a matter of fact there are various objections to my previous explanation, which now prevent me from regarding it as correct. The *j* of the added root *ja* would have been treated in a completely different way in the passive stem and in the present stems. For the latter *j* gives rise to all those changes in the preceding consonants mentioned on p. 211 ff. I cannot see any reason why e.g. the hypothetical φρικ-jᾱ-μι should become φρισσω, but δρακ-ja δρακ-η, why φαν-jω should become φαίνω but φαν-ja φανη. The length of the vowel in ἐ-δράκη-μεν ἐ-δράκη-τε and in the

[4] Compare ἐκδαβῆ· ἐκκανθῆ Λάκωνες in Hesych. according to the convincing justification of the M.S. reading by Ahrens Dor. p. 49, and δαβῆ· καυθῆ.

infinitive δρακῆ-ναι would remain unexplained. While in Sanskrit the passive appears quite as a present formation, the Greek passive stems 331
have nothing corresponding to the present expansion of the stem by *ja*. Further the long *ē*, which in itself might indeed have come very well from the vowel of the rt. *ja* (cp. ἰέ-ναι), must have established itself with wonderful tenacity in this particular formation.[5] But the main point lies in the following consideration. We were compelled to regard these passive stems as recent Greek formations; and, as we are by no means inclined, from the advanced point of view of the philology of the present day, summarily to refer the phenomena of individual languages to Indo-Germanic primitive forms, the explanation put forward thirty years ago in harmony with the procedure of comparative grammar then alone in vogue, which had all the boldness of youth, but often stood in need of a sifting process, loses very much of its probability. Now-a-days chronological considerations alone prevent us from seeking the explanation of a relatively recent and distinctively Greek form in a completely obsolete form of the primitive Indo-Germanic language; and we can regard as probable only such an explanation as agrees well with other phenomena of Greek itself, and is confirmed by precedents in European formations.

An explanation of this kind for our passive stem has been attempted first, so far as I know, by Schleicher Comp.[3] p. 812 in the following words: 'Possibly however this ε or η is nothing but an expansion of the stem after the fashion of the derived verbs, the stems of which are not uncommonly treated as though their final letter were the final letter of the root (cp. Lesb. Aeol. φίλημι O. H. G. *habē-m* etc.). As the form of derived verbs was used in Lithuanian and Latin to express the function of a past tense, so it may have been employed here to produce that of the passive. It is not the case that all recent formations are compounds.' These words seem to me to contain the germ of the true solution of the riddle. We have pointed out above the complete phonetic agreement of the 332
Aeolic imperfects of the *e*-conjugation with our passive aorist. In forms like ἐχάρην, ἐμίγης, ἐάγη, τερσήμεναι it is quite impossible to see at once whether they are Aeolic imperfects like ἐφίλην, ἐνόη, or passive aorists of ordinary Greek. The Lesbian Aeolians actually form the infinitive in precisely the same way from the stems of both kinds: κάλην, ἐπαίνην on the one hand, ἐντάφην (cp. γενήθην, μεθύσθην) on the other. It would be a strange accident if in spite of this the two formations had absolutely nothing to do with each other. The lighter passive stem has besides many points of contact with those *e*-stems, the interchange of which with shorter stems constitutes the peculiarity of the *e*-class (p. 258 ff.). Compare

γεγράφηκα (p. 265) and ἐγράφην
δεδάηκα (p. 267) } and ἐδάην, δαήσομαι
δεδάημαι }
στερέω, ἐστέρησα (p. 269) beside ἐστέρην
τραπέω, in a different application (p. 269) beside ἐτράπην
ἐρρύηκα (p. 270) beside ἐρρύην, ῥυήσομαι
τυπήσει ,, ,, ἐτύπην, τυπήσομαι

[5] A somewhat differing attempt to explain these forms on the same principle may be found in Westphal's Formenlehre der Gr. Sprache ii. 1, 290. He explains ἐ-μίγη-ν to be for ἐ-μιγεα-ν, regarding the ε as the representative of the *j*. Most of the arguments developed in the text hold good also as against this explanation.

κεχαρηότα, κεχάρηκα
κεχάρηντο, κεχαρησέμεν } beside ἐχάρην.

In cases where there is no difference of meaning as in the forms of the roots δα, ρυ, χαρ it is the most impossible to deny the common character. For δεδά-η-κα and ἐ-δά-η-ν, κεχαρηότα and ἐχάρην we must set down the same stems δαη, χαρη, and we have to decide between two equally dubious hypotheses, viz. the one, that this agreement is based upon chance, and the other, that other tense forms beside the aorist and future can occasionally be formed from a passive stem. Others however of the forms cited above, like στυγέω, γεγράφηκα, have an active meaning, so that there is not the slightest reason for deriving them from a passive stem. Hence we should only have pure accident left. After what has been said there can, I imagine, be no doubt about the true state of the case. We may say with confidence: *the lighter passive stems are nothing but stems expanded by the addition of* e, *and inflected*
333 *in the Aeolian fashion.* The *e*-stems have in fact repeatedly presented themselves as important new formations at different points in the sphere of the European languages, and they often appear, as we have seen especially on p. 259, and in the case of the future on p. 477, acting as 'second' or vicarious stems by the side of shorter ones, especially, outside of Greek, in the Latin, Lithuanian and Slavonic present. The same stem-expansion we recognized in the case of the perfect as an extremely important contribution towards understanding the Greek as well as the Latin perfects. Here our investigation brings us back once more to the same phenomenon. If any one chose to quote the Elean forms in ᾱ cited on p. 491 as an objection to our representation, we could answer that the Eleans too furnish the *e* in the neuter participle γραφέν, and that therefore the ᾱ in δοθᾶ, ἀποσταλᾶμεν is based upon a very extensive preference of this dialect for ᾱ, upon which we cannot form a more definite opinion, until more materials are at our command.

But one circumstance, we must admit, seems to stand seriously in the way of our view:—the meaning. Whence comes the passive meaning for this passive stem. I cannot get over this point as easily as Schleicher does with what he says about 'function.' It is one of Schleicher's weak points that he withdraws into a cold nescience before all questions of meaning, with the timidity all his own. But it is true that transitive and intransitive, active and passive meaning are not unfrequently interchanged in an extremely capricious fashion. For instance it would not be easy to find any reason why the aorist ἁλῶναι along with ἁλώσομαι reached its sharply passive force; and some might wish to employ such examples in order to throw overboard any question as to internal reasons in the case of our passive stems. But the case is different here. It has been already pointed out more than once that by no means all passive aorists of this formation have a rigorously passive force. Kühner Ausf. Gr. i.[2] p. 560 says 'the so-called aor. ii. pass. is nothing but an aor. ii. act. constructed according to the formation in μι with an *intransitive* force.' The meaning of very many of these forms is intransitive, not passive. Thus the category of the passive is
334 completely inapplicable to δαῆναι learn, γηρείς grown old, θερῆναι warm one's self (ἐπεί κε πυρὸς θερέω ρ 23), ῥυῆναι flow, μανῆναι grow mad, σαπῆναι rot, τακῆναι melt, τερσήμεναι dry (εἵματα δ' ἠελίοιο μένον τερσή-

μεναι αὐγῇ ζ 98, οὐδέ μοι αἷμα τερσῆναι δύναται Π 519), φανῆναι appear, χαρῆναι rejoice; ἐξεκλάπησαν in Xenophon Hell. v. 4, 12 and elsewhere means not 'they were stolen' but 'they stole away,' ξυνελέγημεν in Arist. Eccl. 116 not 'we were assembled' but 'we assembled ourselves.' In short there can hardly be a doubt that here as elsewhere the passive force is only a special developement from the earlier, partly intransitive, partly reflexive, force.

In this way we obtain for comparison a tolerably large number of formations phonetically similar, and as we shall now with more confidence assert, comparable with these passive stems in meaning and not merely in external form. We saw on p. 244 f. that the intransitive force attaches to the verbs in *-εω*, though not exclusively, yet to a large extent, and much more commonly than to the kindred verbs in *αω*, *οω*. We there compared the prevalent intransitive usage of the Latin verbs in *ēre*,[6] and the Church-Slavonic verbs in *ějeti*. Our Greek passive stems in *e* may be very well connected with these. At least in the case of some passive aorists Latin and Greek completely agree. We may compare *torrēre* with τερσῆναι. If the participle answering to the latter occurred, its stem would necessarily be **τερσεντ*, which would exactly coincide with the Latin *torrent*: in the same way *fulgere* answers to φλεγῆναι, and there is more justice in the old comparison of *cărēre* with καρῆναι than one might think at first sight, the two meeting in the notion of to be shorn, bereft. The late *licet* is to *linquit* much as ἐλίπη to λιμπάνει or λείπει (Princ. ii. 61). *Frequens* presupposes a verb **frequēre* to be close, crowded, which agrees with φραγείς, for which there is but late authority (Princ. i. 376). The difference between the proceeding of the Greeks and that of the Romans lies mainly in this, that the former brought together transitive and intransitive forms into the unity of one verbal system, as indeed happens frequently elsewhere, 335
and even in the case of the most primitive verbs. Compare ἵστημι—ἔστην, φύω—ἔφῡν. The Romans on the other hand treat *pendĕre* and *pendēre*, *jacĕre* and *jacēre* as distinct verbs, and carried each out through all the forms, though these were far less numerous. Hereby the *e*-stem inflected in the Aeolic fashion becomes one of the different valuable members in the body of the same verb, and thus acquires a very different appearance from that of the Latin *e*-stem. In Greek the intransitive usage may have been favoured also by the resemblance of the terminations *-ην*, *-ημεν*, *-ητε*, *-ησαν*, *-ητην* to the past tense of the rt. *ἐς*, a resemblance indeed which in the case of several personal forms could only make itself felt with time. For we have learnt to recognize traces of ἦσμεν, ἦστε, ἧστην, hence it would be wrong to conjecture that such a resemblance was the proper source of the passive usage.

If we survey once more the course which in our view the language struck out for itself in giving a stamp to these forms, we may lay down the successive steps somewhat as follows:

1) At a time when the European languages, and still more probably the two South-European languages, had not separated from each other, by the side of monosyllabic verbal stems, there came into use also in many cases disyllabic stems characterised by the addition of an *e*, interchanging with the shorter ones.

[6] Friedr. Haase in his 'Vorlesungen über lat. Sprachwissenschaft' i. 97 describes the characteristic of the verbs in *ēre* as 'quiet rest in a state.'

2) These stems were inflected quite after the pattern of the derived stems proceeding from *a-ja*, and hence fell to the *e*-conjugation.

3) In this conjugation, as distinguished from others proceeding from the same primitive form, the intransitive meaning prevalently formed itself.

4) At a time when the process of creating these *e*-stems was at its height, the Aeolic method of inflexion, characterised by the long *e*, prevailed in Greece.

5) Thus were formed in imitation of the imperfects the indicative, in imitation of present imperatives, conjunctives, optatives, and verbal nouns the corresponding forms of the lighter passive stems.

6) Developing further the tendency pointed out under 3) these stems found their employment only with an intransitive and passive force.

336 7) It was only later on that the corresponding futures were formed from the same stems on the analogy of the numerous futures in *-ησομαι*.

II. THE PASSIVE STEM IN *-θη*.

Here it is unnecessary to enumerate the individual forms. From Homer onwards the passive formation in *θ* is very common. According to my collections there are in that writer 130 aorists of this sort from stems of the most various kinds, a remarkable excess over the 22 of the lighter formation. In later Greek it is not worth while to do more than count the forms proceeding from consonantal stems. There are 251 of these. From vowel stems, and from all denominative stems this passive stem is properly to be expected in every case, and it is a matter of no importance whether it actually occurs or not. Hence I content myself with citing Homeric examples of verbal stems of different kinds. Homeric aorists of this kind are *ἀλήθην* ξ 120, *γυμνώθη* χ 1, *λύθη* Ε 296, *ἐκίνηθεν* Π 280—*ἐθέλχθης* κ 326, *ἠΐχθη* Γ 368, *θρυλίχθη* Ψ 396—*ἐρείσθη* Η 145, *διεσχίσθη* Π 316, *πέλασθεν* Μ 420, *κρύφθη* Ν 405, *ἐβλάφθησαν* Ψ 387, *ἐνιχριμφθείς* Η 272—*ἀρτύνθη* Λ 216, *ὀρίνθη* Ε 29, *φάανθεν* Α 200—*ἀγέρθη* Δ 152, *ἄερθεν* Θ 74—*αἰδέσθητε* *β* 65.—Of peculiar forms I may mention *ἄχθητι· λυπήθητι* Hesych. as Mor. Schmidt is undoubtedly right in reading in accordance with the alphabetical order, in the place of the *ἄχητι* of the MS. This aorist to the present *ἄχνυμαι* is especially noteworthy because of the present form *ἄχθομαι*. Also *ἐφ-έ-ασθεν· ἐγέλασαν*, *διεχύθησαν*, quoted before on p. 79 because of the augment, *μερθεῖσα· στερηθεῖσα*, *ἀμερθεῖσα* placed already by Lobeck El. i. 37 along with *μείρεται· στέρεται* and *ἀμέρδω*. Another word *μορθῆναι· πειραθῆναι*, *γενέσθαι* is less clear; still it must certainly belong to *ἔμμορε*, *εἵμαρται*. Of *ὀδυσθῆναι· ὀδύσασθαι*, *χολωθῆναι* nothing else is known.

With regard to the vocalism of the stem-syllable we have to notice two points, first the *a*, which, as in the middle perfect and in the lighter passive stem (cp. p. 493), so here too sometimes answers to the *ε* of other forms, and secondly the intensified vowels. The appearance of the *a* we
337 touched upon on p. 82 in speaking of the Homeric *ἐάφθη* which with Aristarchus we derived from *ἔπομαι*. There is good authority for *τραφθῆναι ο* 80, *τάρφθεν ζ* 99, *τάρφθη τ* 213, 251, *φ* 57, according to which I. Bekker was certainly right in writing *ταρφθείη* in *ε* 74, while

κατεστράφθησαν in Herodotus i. 130 (Stein, v. l. κατεστράφησαν), ἐστράφθη in Sophron fr. 78 Ahrens, στραφθέντες in Theocr. vii. 132 make their appearance beside the Homeric στρεφθέντε, though for this in E 575 στραφθέντε is given as the variant of the cod. M. δαρθείς was used for the usual δαρείς by the comic writer Nicocharis (Mein. Com. ii. 844), ἐσπάρθην, σπαρθήσομαι have no authority according to Veitch p. 529, ἀποσταλθέντες is read on the inscription of the Cnossians C. I. 3053 l. 4, ἀποσταλθῇ in the Schol. T on θ 21.—While in the cases mentioned a liquid was usually present, the α is produced by a nasal in φαάνθη P 650 etc., φάανθεν A 200, ἐξεφάανθεν T 17, with which compare φαάνταtος (ν 93). The similar ἐκτάνθη belongs only to late Greek (LXX). It is only, as is shown by ἀγέρθη Δ 152, ἄερθεν Θ 74, κερθέντες Pind. Pyth. iv. 82, a phonetic tendency appearing quite sporadically which is here in question. We shall come by and bye to the α of ἐτάθη etc.

An intensified stem-vowel, mostly in imitation of the present, meets us in this passive stem under exactly similar conditions as in the middle perfect and in the sigmatic aorist. We may take as examples: ἀλειφθῆναι Lys. Plat., ἀπημείφθη Xen. An. ii. 5, 15, ἐδείχθη (Herod. ἐδέχθη), δειχθήσομαι common Attic, ἐπειχθῆναι Thuc. i. 80, ζευχθῆναι Pind. Trag., τευχθῆναι Hippocr. beside Hom. ἐτύχθη (Δ 470), ἐπείσθην common Attic, and so ἐλείφθην (as early as Hymn. in Merc. 195[7]), ἐκπληχθῆναι Eur. Tro. 183, σκηφθῆναι Plato, συντηχθῆναι Eur. Suppl. 1029.

The ν before θ is not fixed in primitive verbs, a circumstance which again reminds us of the perfect (cp. above p. 419 f.). Instead of ε we find in such cases α: κατ-έ-κτα-θεν E 558 (cp. ἔκταν, ἔκτατο, κτάσθαι), ἐτάθην Homeric and Attic (τάθη Ψ 375 etc.). Perhaps ἐβάθη· ἐγεννήθη belongs here, supposing we are to assume that the gloss is Boeotian—in which case we must write ἐβάθει—from the root βα=γα, γεν recorded 338
in the Boeot. βανά=γυνή. ἐβάθη would then be connected with γεγάασι, γεγαώς, ἐκγεγάασθε. Still βαίνειν might also be intended in the sense of cover, beget. In the case of κλίνω and κρίνω the want of a nasal in the passive stems κλιθη, κριθη, may doubtless better be explained from the interchange of the stems κλι and κλιν, κρι and κριν. Hence the fluctuation in Homer: ἐκλίνθη Γ 360, κλινθήτην K 350, but ἐκλίθη τ 470, κλιθῆναι α 366, διακρινθήμεναι Γ 98, κρινθέντες N 129, but διέκριθεν B 815, while subsequently the forms without ν are alone in use. The fluctuation between stems with and without ν met us in another way in δηρινθήτην Π 756 beside δηρίομαι (Pind.), ἰδρύνθησαν Γ 78, Η 56 beside ἵδρυε B 191, afterwards almost exclusively ἱδρυθῆναι: ἀρτύνθη has the two present forms ἀρτύνω and ἀρτύω. Forms like ὠρίνθη Π 509, ἐμαράνθη I 212, ἐξηράνθη Φ 348, μιάνθησαν Π 795, where the ν is generally an integral and indispensable part of the verbal stem, show how little there was any phonetic tendency to suppress the ν before θ. Finally it is worth while noticing how the nasal makes its way in from the present stem in the Herodotean ἐλάμφθην (vi. 92, ix. 119), for which elsewhere we have ἐλήφθην following the precedent of ἔϊληφα, in late Greek ἐλήμφθην. Cp. p. 174.

We have mentioned incidentally above that the two passive stems are in use side by side incomparably more commonly than the sigmatic

[7] ἔλιφθεν Callim. Hymn. in Cer. 94 is certainly properly corrected by O. Schneider after Blomfield into ἔλειφθεν.

aorist by the side of the primitive or thematic. Even in Homer we find the pairs:

βλάβεν and *ἐβλάφθησαν* (Ψ 387).
δάμεν and *δμηθέντα* (Δ 99).
μιγῆναι and *μιχθήμεναι* (Λ 438).
τάρπημεν and *τάρφθη* (φ 57).

In Attic the following are in use:

ἐξαλιφῇ and *ἀλειφθέν* (both in Plato).
ἀπηλλάγην Aesch. Pr. 750 and *ἀλλάχθη* Eurip. I. A. 798 (ch.)
βαφῆναι (Plato) and *ἀπεβάφθη* (Aristoph. fr. 366 Dind.)
ἐζύγησαν Plato Rep. 508 and *ζευχθεῖσα* Plat. Polit. 302.
ἐκλίνην (cp. above p. 492) and *ἐκλίθην* (Plat. Xen.)
κρυφείς Soph. Aj. 1145 and *κρυφθέντα* Soph. El. 837.
ῥιφέντα Eur. fr. 486 D and *ῥιφθέντες* Eur. Hec. 335.
διετρίβη Thuc. i. 125 and *τριφθεῖσα* Thuc. ii. 77.
τακῇ Eur. fr. 230 and *ξυντηχθείς* Eur. Suppl. 1029.

339 For the usage of the tragedians Porson on Eur. Phoen. 986 (=972 Dind.) thought he had discovered the rule, 'asperas et antiquas formas adamarunt Tragici, ideoque aoristos priores praetulere.' But apart from the fact that many of the lighter aorists are just as old as the heavier ones, the rule is not observed, as Veitch has shown under *ἀλλάσσω* p. 45 by a number of examples. The unrestricted choice between two equivalent forms still seems to many a scholar something unworthy of a formed language, though our own mother-tongue gives a precisely similar instance in the parallel usage of *wob* and *webte*, *frug* and *fragte*. [Cp. our own use of *my* and *mine*, *loves* and *loveth*, *kill'd* and *killed*: and see D. B. Monro on Homeric Grammar § 57.] In this case fortunately the metre not uncommonly presents insuperable obstacles to the passion for alteration.

If we now attempt to arrive at the origin of the passive stems with *θ*, it is in the first place quite certain that these stems find their place in a larger group of forms which, though very differently used, are connected together by the addition of the same consonant. We must therefore first take a survey of these forms.

θ elsewhere than in the passive stem.

The present forms in *-θω* and the past tenses in *-θο-ν* have been actively discussed and diligently collected by modern grammarians, not as yet following in the lines of comparative philology. The discussion was set on foot by the question raised by Elmsley on Eur. Med. 186 and Soph. O. C. 1015, whether the past tenses in *-αθο-ν* provided with this termination are, as the English critic maintained, aorists, or imperfects. Buttmann Ausf. Gr. ii.[2] p. 61 ff., Lobeck in his note on this passage, but especially Immanuel Herrmann in the Erfurt programme of 1832 'de verbis Graecorum in *αθειν*, *εθειν* exeuntibus' and still more thoroughly Wentzel in the Oppeln programme of 1836 'qua vi posuit Homerus verba quae in *θω* cadunt?' have discussed actively this question of meaning and accentuation—for the latter concerned the critics especially. G. Hermann has incidentally (on Soph. O. C. 1015, and on Eur. Phoen. 1184) expressed himself as against Elmsley. Valuable investigations in
340 a different direction are furnished by Lobeck Rhem. 92 ff. We can

therefore draw upon the collections of these predecessors in exhibiting here the stock of forms. We give past and present tenses side by side as our present question is only that of formation.

A) Presents in -θω and Past Tenses in -θο-ν.

1) From monosyllabic vowel-stems.

a) With a short stem-vowel.

ἔ-σχε-θο-ν, poetical from Homer onwards (ἔσχεθε M 184, ἀνεσχέθομεν ι 294, σχεθέτω θ 537, σχεθέμεν Pind. Ol. i. 71, σχεθεῖν Aesch. Prom. 16, κατασχεθόντες Soph. El. 754).

The other forms of the same kind

ἔ-μαθο-ν, ἔ-παθο-ν and ἔ-δραθο-ν (by the side of ἔ-δαρθο-ν) have been discussed above p. 280 and 284 f. They are distinguished from ἔ-σχεθο-ν by the fact that the θ is not limited to this one tense-stem.

b) With a long stem-vowel.

βρίθω from Homer onwards (βρίθησι τ 112, βρῖθομένη Θ 307, βρίθεις Soph. Aj. 130, βρίθει Plato Phaedr. p. 247) with the perfect βέβριθε (Π 384). The accessory nature of the θ is shown by βρι-αρό-ς (Princ. ii. 77). The comparison with βρενθύομαι and Lith. *brę̃stù* to fill (intrans.), suggested by Joh. Schmidt Vocal. i. 124, according to which the θ would belong to the root, can hardly be reconciled with the use of βρίθειν.

γηθο-μένων Quint. Smyrn. xiv. 92, γηθομένῃ Anthol. Pal. vi. 261, γήθονται Sext. Empir. p. 567, 11 ed. Bekker. There are further the perfect γέγηθα cited above p. 401, and the present γηθέω to be discussed hereafter. The rt. γαϝ underlies the shorter γαίω (Princ. i. 211).

κνήθω, κνήθομαι, a by-form to κνάω, which can be quoted from Aristotle onwards.

νήθω Plat. Polit. 289, shorter present form νέω=Lat. *neo*.

πλήθω from Homer onwards (πλήθει Φ 218, πλῆθεν Θ 214) Dor. πλάθω (πλάθουσι Aesch. Choeph. 589 chor.), in prose πληθούσης ἀγορᾶς. There is also πέπληθα, cp. above p. 401.

ἐνέπρηθον only I 589. A present πρήθω is nowhere found.

πύθω poetical from Homer onwards: πύθεται Λ 395, and in later prose. πῡ-θο-ν=Lat. *pus*, πυέω show that the θ is an accretion (Princ. i. 356). 341

ἀποσήθειν only quoted by Athenaeus xiii. 591 from the grammarian Herodicus, a pupil of Crates.

c) With preceding consonants.

ἄχθο-μαι. Cp. p. 265, and for the origin of the root ἀχ (ἄχ-νυ-μαι) Princ. i. 234.

ἔσθω poetical and late prose present from the rt. ἐδ, beside the usual ἐσθίω: ἔσθοντες Θ 231, πῖνε καὶ ἔσθ' π 141, ἔσθει Aesch. Ag. 1597, ἔσθοντας Philippides Com. Meineke iv. p. 469.

2) From disyllabic stems.

a) In *α*.

ἀλκά-θω καὶ ἀλκάθειν[8] Σοφοκλῆς *καὶ Αἰσχύλος, σημαίνει δὲ βοηθεῖν* Bekker Anecd. p. 383, 31.

ἀμνάθετε Aristoph. Nub. 1322, *ἀμνάθειν* Soph. O. C. 1015, Eur. Iph. A 910, *ἀμνάθου* (imper.) Aesch. Eumen. 438.

διωκά-θω Aristoph. Nub. 1482, *διωκάθειν* Eurip. fr. 364, 25, Plato Euthyphr. p. 15, *ἐδιώκαθες* Ar. Vesp. 1203.

ὑπ-εικάθοιμι Soph. El. 361, *παρεικάθῃ* Plato Sophist. 254, *εἰκάθοντα* Soph. Trach. 1177.

ἐ-έργα-θεν E 147, *ἀποέργαθε* Φ 599, *ξυνεέργαθον* Ξ 36, *ἀπειργάθῃ* Soph. O. C. 862, *κατειργάθου* (imper.) Aesch. Eumen. 566.

κατ-ε-κείαθε · κατεκοιμήθη Hesych. with which compare *κίασθαι · κεισθαι* cited p. 120.

μετ-ε-κίαθε Π 685, *μετ-ε-κίαθο-ν* Λ 52, Σ 581, then in Apollon. Rhod. and Callim. Hymn. in Dian. 46.

πελάθεις Aesch. fr. 131, *πελάθει* Rhes. 556, Aristoph. Thesmoph. 58.

b) In *ε*.

ἠγερέθονται to *ἀγείρω* Γ 231, *-ντο* Μ 82 etc., *ἠγερέθεσθαι* Κ 127. Cp. *ἀγράθεν* (Doric?)· *συνάγειν* Hesych. on the analogy of *ἐέργαθον*.

ἠερέθονται Γ 108, Φ 12, then in Apollon. Rhod.

342 Ἀρέθουσα, doubtless belonging to *ἀρέσκω*.

ἐμέθω τὸ ἐμῶ Cramer Anecd. Oxon. i. 87, 7.

ἐρέθουσι τ 517, *δ* 813, *ἐρέθῃσι* Α 519, *ἔρεθε* Γ 414, *ἤρεθον* Theocr. xxi. 21, expanded *ἐρεθίζω* Α 32.

θαλέθων ψ 191, *θαλέθοντες* ζ 63, Ι 467, *θαλέθουσιν* Theocr. xxv. 16.

νεμέθοντο Λ 635, *νεμέθων* Nicand. Ther. 430.

ἐ-σπερέθοντο · ἔσπειρον Hesych.

τελέθει Η 293, *τελέθουσι* Μ 347, *τελέθοντες* ρ 486, then in Pind. (Pyth. ii. 78), and the tragedians (Aesch. Suppl. 1040, Eur. Med. 1096) *τελέθει* Tab. Heracl. i. 111.

φαέθων Λ 735, Soph. Eur. *Φαέθουσα μ* 132.

φλεγέθει Ρ 738, *φλεγέθοντι* Φ 358, *φλεγεθοίατο* Ψ 197, Aesch. Suppl. 87, *φλεγέθων* Soph. Trach. 99.

χρεμέθωσι Oppian Cyneg. i. 163, *ἐπιχρεμέθων* Apoll. Rhod. iii. 1260. There is also with a long *e*

ἀλήθω quoted from Hippocrates and Theophrastus. Babr. 131, 5 *ἤληθον*.

c) In *ν*.

βαρύθει Π 519, Hes. Opp. 215, *βαρύθοντο* Quint. Smyrn. xiii. 6.

ἤλυθο-ν quoted above p. 284. It is best to refer it to a rt. *ἐλ* with the expanded by-form *ἐλυ*, which occurs in *προς-ηλύ-τη-ς*, *προς-ήλυ-το-ς* and in *ἐλήλυ-τε* (above p. 387, Princ. ii. 179; cp. rt. *ϝαλ* beside *ἄλυ-σι-ς*, rt. *ϝερ* beside *ϝερυ* p. 122), especially as the aorist is thus brought into

[8] Elmsley and after him Dindorf and others write *ἀλκαθεῖν* and regard *ἀλκάθω* as an 'invention of the grammarians,' and so in the rest of the verbs, though I do not in every case mention it, in all corresponding instances.

connexion with the present ἔρχομαι (p. 197). Fick's attempt to start from a root λυθ=Skt. *rudh* (Ztschr. xix. 250, Wörterb. i.³ 200) is not at all borne out by the meaning, and would lead to the separation of ἔρχομαι and ἤλυθο-ν. The syncope of a *v* in ἦλθον would also be hard to explain. From ἐλ ἦλ-θο-ν is formed independently, just as ἤλυ-θο-ν from ἐλυ. For the perfect form cp. p. 398. But perhaps the Skt. *rudh* is itself only a variant of *ardh*, and comes like this from *ar*.

μινύθει Π 392, μινύθουσι P 738, Hes. Opp. 244, Aesch. Eum. 374, Soph. O. C. 686.

φθινύθουσι Z 327, φθινύθειν B 346, φθίννθον P 364, ἀποφθινύθωσι 343
Apoll. Rhod. i. 683.

d) In consonants.

A special group is formed by the presence of σ before θ:

ἀΐσθω· θυμὸν ἀΐσθων Π 468, θυμὸν ἄϊσθε Υ 403. The connexion with ἄημι, ἀΐω (ἐπεὶ φίλον ἄϊον ἦτορ Ο 252), ἀάζω etc. from the rt. *vā* breathe (Princ. i. 483 f.) cannot be doubted. ἀΐσθω is probably for ἀϝετ-θω and is most closely connected with ἀετμόν· πνεῦμα Hesych.

βιβάσθων, only in this form N 809, O 676, Π 534. The σ here probably comes from a δ, so that βιβάσθων is to be explained from the expanded rt. βαδ, occurring in βάδ-ο-ς· βαδ-ίζω.

ὤλισθον from Homer (Υ 470) onwards, ὀλισθάνω from Sophocles onwards, perhaps from a stem γλιτ (γλισ-χρό-ς): Princ. i. 458.

ἐρέχθων ε 83, ἐρεχθομένην Ψ 317, Hymn. Apoll. Pyth. 180 is probably rightly grouped by Spitzner (Exc. 34 ad Iliadem) and others with the almost equivalent ἐρείκω, to which it is related on the ground of its second ε much as ἐρηρέδατ' to ἐρείδω (above p. 418). Cp. Ἐρεχθεύς and Ἐριχθόνιος.

B). Formations further derived.

Besides θ we find other expanding elements in the following forms:

γηθέω beside γηθόμενος mentioned above p. 501, is not uncommon in poets from Homer (Ξ 140, ἐγήθεε H 127) onwards, as well as γηθήσω, γήθησε. γηθέω is quite parallel to *gaudeo*, and is related to the shorter formation as ἠθέω to σήθω (Lobeck Rhem. 93 f.).

ὑπ-εικαθέων only in Oppian Halieut. v. 500.

ὀρέχθεον only Ψ 30 πολλοὶ μὲν βόες ἀργοὶ ὀρέχθεον ἀμφὶ σιδήρῳ: Spitzner and others are certainly right in taking it in the sense of ὠρέχθησαν.

The view of Wentzel, that the Homeric forms ἀνσχεθέειν (ε 320) and εὖ σχεθέειν περὶ τέρμα Ψ 466 are not aorist infinitives but present forms of the same formation as the three just quoted, is perhaps correct.

An ι forming the present meets us in ἐσθίω (cp. p. 207).

The following again are expanded in a different way: 344

κιναθ-ίζω, which occurs only in Hesych.,[9] while the substantive κινάθισμα thence derived is found in Aesch. Prom. 124.

ὀροθύνω. ὀρόθυνε N 351, O 595, ε 292, ὀρόθυνον Φ 312, ὠροθύνετο Aesch. Prom. 200, evidently belonging to ὀρίνω, ὄρνυμι.

[9] Of the different meanings of this verb ἰδιάζειν, ἀποθησαυρίζειν κατὰ μικρὸν συλλέγοντα, ἔνιοι μινυρίζειν καὶ κινεῖν it is only the last which comes into consideration here.

It is worth while noticing how various the stems are from which these formations are produced. By the side of stems little differing from the root, such as those cited under 1), we find stems which we are justified in regarding as present stems. This comes out most plainly in the case of *φθινύ-θω* and *μινύ-θω*, from which we can restore the present stems in *-νν* (p. 108 ff.). As *φθι-νύ-θω* is to *τί-νυ-μαι*, so is *ἠμύ-να-θο-ν* (cp. Fritzsche Stud. vii. 386) to a hypothetical **ἀμύ-νά-μαι*, and *ἐ-κί-α-θο-ν* to the *ἐ-κί-α-το· ἐκινεῖτο* (cp. p. 120) actually preserved in Hesychius, *κατεκείαθε* to the *κία-σθαι· κεῖσθαι* also quoted by him. Hence we shall be inclined to compare also the *α* of *πελά-θειν*, *ἀλκά-θειν* with that in *ἄγα-μαι*, *ἔρα-μαι* (p. 118 ff.).

C) Meaning.

This is to be discussed in two directions. In the one case it is a question of the interchange between active or transitive and passive or intransitive usage,—relations which have to be taken into consideration especially for the understanding and the correct analysis of the kindred passive aorists,—and in the other of the dispute, which has been carried on with more zeal than insight, whether the past tenses belonging here are past imperfects or aorists.

With regard to the first point, we meet with an extraordinary variety. We can distinguish three cases:

1) Decidedly transitive forms.

To these belong *ἀΐσθων* (*θυμόν*), *ἀλήθειν* grind, *ἔσθω* and *ἐσθίω*, *ἐρέθω* (*ὀξεῖαι μελεδῶνες ὀδυρομένην ἐρέθουσιν τ* 517), *διωκάθειν* (*αἰσχροὺς ἔρωτας δημοτῶν διωκάθειν* Eur. fr. 364, 25, *κάπρον ἐδιώκαθές ποτ'* Aristoph. Vesp. 1203), *ἐνέπρηθον μέγα ἄστυ* I 589, *νήθειν* spin, *σήθειν* sift, *ἐσπερέθοντο· ἔσπειρον*, *Πηλείωνα—ἀποέργαθε λαοῦ* Φ 599, *ἐμέθειν* =*ἐμεῖν*, *Ἀργείους δὲ Ποσειδάων ὀρόθυνε* N 351.

2) Decidedly intransitive.

345 *ἔδραθον*, *ἐκίαθον*, *εἰκάθειν*, *πελάθειν*, *μακρὰ βιβάσθων* N 809, *βρίθειν*, *ἠερέθονται*, *ἠγερέθοντο*, *νεμέθοντο* (they were feeding—pascebantur), *βαρύθει δέ μοι ὦμος ὑπ' αὐτοῦ* Π 519, Hes. Opp. 215, *κατακείαθεν· κατεκοιμήθη*, *ἴθεοι θαλέθοντες ζ* 63, *ἠέλιος φαέθων* Λ 735, *νὺξ δ' ἤδη τελέθει* H 293, *χρεμέθειν*, *πύθεσθαι*, *ἄχθεσθαι*, *ὀρέχθεον*.

3) Fluctuating instances in Homer.

πόλιν φλεγέθει P 738, *πυρσοὶ φλεγέθουσι* Σ 211, *ἠδ' ὅτινας μινύθῃ* O 492, *μινύθει δέ τε ἔργ' ἀνθρώπων* Π 392, *φθινύθουσι φίλον κῆρ κ* 485, *τούςδε δ' ἔα φθινύθειν* B 346, *ἀνεσχέθομεν Διὶ χεῖρας ι* 294, *οὐδὲ δυνάσθη αἶψα μάλ' ἀνσχεθέειν μεγάλου ὑπὸ κύματος ὁρμῆς ε* 320; *πλήθειν* in the earlier time is only intransitive: *ποταμῷ πλήθοντι ἐοικώς* E 87, *πληθούσης ἀγορᾶς* (Attic), but in later poets *πλήθειν* is transitive also: *πλήθει δ' αὖτε κύπελλα βοῶν γλάγος ἠδὲ καὶ οἰῶν* Quint. Smyrn. vi. 345.

From these groupings it becomes plain that we cannot talk of any definite meaning for this class of verbs. Still the intransitive force is the prevalent one.

The other question, whether the forms in *-θον*, *-θομην* are of an aoristic or a present kind, has, as we saw, raised much dust. After all that has been said in this book as to the nature of the aorist, it hardly needs any further explanation that here as everywhere the aoristic force does not inhere originally in any one form, but only gets attached to it by the isolation from an indicative present. The fact that there are numerous presents in *-θω* should of itself be enough to warn us against the mistake of looking for anything particularly aoristic in the *θ*. As we saw on p. 275 that the question whether *ἔτραπον* is aorist or imperfect can only be decided upon the basis of another, whether at the same time and in the same dialect *τράπω* occurs as an indic. pres., so here too. But this criterion is in the present instance an extremely unsafe one for us, for the lack of a recorded present form may very easily be the result of pure accident. Wentzel, though he deserves the credit of refuting erroneous views with regard to the aoristic force, yet himself starts from false assumptions. He says on p. 19 on *ἔσχεθον*: Ego statuo, priore 346
parte hujus vèrbi, quia est aoristus, initium actionis, et altera parte, quae est facta terminatione *εθω* continuationem actionis inceptae vel statum indicari, qui est *effectus actionis inchoatae*. How are we to suppose that the syllable *σχε*, the same as that which underlies the nominal forms *σχέ-σι-ς*, *σχε-δόν*, *σχολή*, *σχῆμα*, or even the phonetic group *σχ*, as Wentzel assumes, had from the first an indwelling aoristic force? The only important support for the aoristic force of the form is the infinitive *σχεθέειν*, but Wentzel justly remarks that this might come under the analogy of *ὀρεχθέον*. The accentuation of the participle *σχέθων* as an oxytone in defiance of all authority was regarded by Buttmann (ii.[2] 63) as over-bold. *σχέθων* has maintained its ground in the recent editions of Pindar Pyth. vi. 19, and no trace of aoristic force can be detected there. In the texts of the tragedians *σχεθών* is now adopted for the most part after Elmsley [cp. Jebb on Soph. El. 356]: thus Soph. El. 754 *κατασχεθόντες*. Similarly in the case of other forms, e.g. *εἰκάθειν* which in El. 1014 has certainly nothing aoristic about it, but is yet generally accentuated *εἰκαθεῖν*. It is only Bergk who preserves the traditional accent. The zeal of Elmsley and his followers against the accentuation of such words as presents is doubtless to be explained from the endeavour, laudable in itself, to destroy root and branch the not duly supported presents, which often used to pass current, while forms baptized with the name of aorists were held to be admissible in varied multiplicity. It is further certain that a decidedly aoristic force never established itself. Hence I conclude that, as Buttmann has already decided, we have no right to alter the accentuation, and that we have to keep ourselves free from subtle splitting of hairs with regard to present or aorist force in these cases.—How little the appended *θ* belongs exclusively to any one tense-stem comes out clearly from our whole statement of the case, and especially from its sporadic occurrence in the perfect, e.g. *γέγηθα*, *πέπονθα*, *ἐλήλυθα*, as well as from the extension of the sound over different tense-stems, discussed in Princ. i. 81 f.

Similar Formations in other Languages.

Bopp Vergl. Gr. § 630 ff. placed the θ of the various Greek verbal forms side by side with a series of phenomena in the cognate languages;
347 and others, especially Schleicher, have made considerable additions to his list. As the material is nowhere completely collected so as to admit of a ready survey, the most important facts may be briefly adduced here.

1) In Sanskrit we find the compound verbal stem *çrad-dhā* trust, believe, from which, as early as the Vedas, came forms like the participle *çrad-dádhāna-s* and *çrad-ḍhita-s*, and subsequently the present *çrad-dadhāmi*, unmistakeably a compound from the neuter substantive *çrat* or *çrath* trust, and *da-dhā-mi*=τί-θη-μι; a view which is confirmed by the fact that this primitive noun is also separated from its verb, and compounded in the place of *dha* with the equivalent *kar* make. The identity of this *çrad-da-dhā-mi* with the completely equivalent Lat. *crē-do* (for *cred-do*) is one of the earliest discovered and at the same time most noteworthy facts in comparative philology.—This same *-dha* occurs also in Skt. *sva-dhā*, properly 'own doing,' then custom, use, habit, from which comes the Greek stem *ϝεθο*, preserved in the Aeol. *ἐ-νέθω-κα* (for *ἐ-σϝεθω-κα*), shorter *ϝεθ* (*ϝέθος*, *εἴωθα*), Princ. i. 311.

2) In the Zend the corresponding *da* is in far more extensive use. Bopp quotes *yaoz-da* purify beside the adverb *yoz* purely. Hübschmann Zur Casuslehre p. 309 note gives a full dozen of such formations, e.g. *qab-da* fall asleep, beside *qap* (=Skt. *svap*, Gr. *ὑπ*, Lat. *sop*) sleep. This *d* is not uncommon in nominal formations also.

3) From Latin, besides *crēdere* already mentioned, we may with certainty place here the prepositional compounds *con-de-re*, *ab-de-re*, *sub-de-re*, *per-de-re*. Only in the case of a few, as the two Indo-Germanic root *da* give and *dha* place have come to coincide, it is not possible to decide whether the one or the other root is present. Whether the *d*, which *ten-do* has added to the rt. *tan* (*teneo*, Gr. *τείνω*, Skt. *tan*) arises from the same source, may be left undetermined.

The root *dha* would have undergone in this language an application still more closely corresponding to Greek formations in θ, if we ventured to agree with Scherer, who in his Gesch. der deutschen Sprache p. 202
348 explains the imperfects in *-bā-m* to be from this root. The objections brought against this view by Corssen seem to me to have been answered by Pauli Ztschr. xx. p. 325 f. It is certainly surprising that the root *dha* in essentially the same application in the same language within a word should appear at one time with the dental, at another with the labial medial. In any case the *b* of *ba-m* cannot be separated from the *b* of the future in *-bo* and of the participle in *-bundus*, and as this sound might have arisen just as well from the rt. *bhu* as from the root *dha*, I do not find any absolutely decisive criterion within the Italian languages for the one or the other view. We might adduce in support of the derivation from the rt. *dha* the wider extension of the rt. *dha* as an appended auxiliary. If Scherer were right, we might compare *ἐ-βουλή-θη-ν* and *volē-ba-m*, both with an expanding *ē*, *ἐδό-θη* and *dă-ba-t*, both without it, *ἐστά-θη-ν* and *stā-ba-m* in spite of a slight difference of formation. As for the retention of the *a* in Latin, we might find a parallel to this in the Elean forms like *δοθᾱ́* quoted above p. 491. I know of

only one argument which is against such a connexion. To the Latin future in *-bo* answers an Old Irish future in *b*, which alternates with *f* (Schleicher Comp.[3] 824). But in the Keltic languages, as Dr. Osthoff reminds me, neither *b* nor *f* can represent an original *dh*. Hence we must either separate the Lat. *carē-bo* from the O. Erse *caru-b* (amabo), or *carēbo* from *carebam*, and both of these courses are alike dangerous, or we must return at last to the old explanation of *b* from *bh*, and that will be best.[1]

4) The Teutonic languages present us with the compound past tense, Goth. *nasi-da*, plur. *nasi-dēdum*, an explanation, which in spite of some difficulties has maintained its ground victoriously against recent attacks.

5) In the Letto-Slavonic languages a series of comparable phenomena have been pointed out, especially

a) A present-forming *dha* (cp. πλήθω) in the Lith. *ver-du* I cook (cp. 349
Schleicher Comp.[3] 782) and in the Church-Slavonic *i-dą* I go, *ja-dą* I travel, ride (rt. *ja*=*iε*). Cp. Jagić Das Leben der Wurzel *dě* in den Slavischen Sprachen.

b) Lithuanian present active participles in *-da-ma-s*, e.g. *jō-da-ma-s* from *jō-ti* ride.

c) Lithuanian causatives in *dýti* e.g. *bai-dýti* scare by the side of *bijóti* fear, and *-dinti* e.g. *lý-din-ti* to make to rain, *ves-din-ti*, cause to lead, beside *vésti* lead. This union of the expansion by means of the rt. *dha* with a nasal syllable reminds us of *αἰσ-θ-άνο-μαι*, *δαρ-θ-άνω* (p. 182).

To enter upon the traces of *dha* in the formation of nouns would lead us too far here. But it is extremely probable that the θ in words like *πλῆ-θ-ος*, *πλη-θ-ύ-ς*, *στῆ-θ-ος*, *ἐϋ-στα-θ-ής*, *ἀρ-ι-θ-μός*, *ῥυ-θ-μό-ς*, *μισ-θ-ό-ς*, *μέγε-θ-ος* is not at all different from that here under discussion. It can hardly be doubted that the rt. *dha* do is at the bottom of this widespread element.

Origin of the Syllable θη (θε) in the Passive Aorist and its relation to θο (θε).

Bopp Vergl. Gr. ii.[2] § 630 found no difficulty in setting down the syllable θη in the passive aorist as quite identical with the *dhā* of the active Sanskrit aorist *a-dhā-m*, *a-dhā-s*, *a-dhā-t*. '*ἐ-τύφ-θη-ν* is distinguished,' he says, 'from *ἔθην* only in this respect—and that is an advantage—that it allows to the more weighty personal endings of the dual and plural no shortening influence on the root-vowel, as the Sanskrit *a-dhā-m*=*ἔ-θη-ν* also refuses to do in its simple condition, e.g. setting *á-dhā-ma* over against the Gr. *ἔ-θε-μεν* for *ἔ-θη-μεν*.' He goes on to say 'After the syllable θη was no longer recognized as an auxiliary verb, the force of a passive character attached itself to it, just as our instinct of language fails to recognize an auxiliary in the *-te* of *such-te*, or just as in another *te*, that of *heu-te* we no longer feel the presence of *Tag*

[1] A new adherent of Scherer's view has recently appeared in the person of F. G. Fumi in his essay entitled 'Sulla formazione latina del preterito e futuro imperfetti' (Milano 1876). This study written with delicate judgment, and the most complete knowledge of the facts, contains many excellent remarks, and many suggestive points of view.

and in *heu* (O. H. G. *hiu*) we no longer recognize a demonstrative.' This explanation I disputed in my Tempora u. Modi p. 325, mainly on the ground of the meaning, and proposed an alternative one, in which I
350 started for *-η-ν* and *-θη-ν* from a common primitive form *jη-ν*, e.g. for *ἐ-μίγη-ν* and *ἐ-μίχθη-ν* from *ἐ-μιγ-jη-ν*, and identified this syllable *jη* with the Skt. rt. *jā* go. This explanation broke down upon the impossibility of tracing back the *θ* after other stem-consonants than explosives to *j*; and besides the forms in *-θο-ν*, *-θω* etc. so remained quite out of connexion with those in *-θη-ν*. For these reasons I proposed another explanation in Ztschr. i. 25 ff. The strange phenomenon presented by the passive force of an active form of a verb of doing I tried to get rid of by referring the syllable *-θη* to the rt. *dha*, but at the same time explaining the length of this syllable by means of a union of the rt. *dha* with *ja*, thus explaining *-θη-ν* from *-θε-η-ν*, i.e. the formative syllable of this passive aorist as a passive aorist from the rt. *θε*. The meaning did indeed get its due thus, but it was a bold assumption that this *-θη* contained implicitly a second stem, which had been annihilated without leaving a trace. And there was no example whatever of a passive aorist after the fashion of the presupposed *ἐ-θε-jη-ν*. With the exception of a few passive formations from stems in *ν*, roots ending in a vowel always reject the addition of the termination *-η* to form the passive stem. Further, the appeal to the verb *fio*, probably coming from *dha-jā-mi* is all the less satisfactory that Hesychius quotes a partially comparable *θίημι* in the active meaning of *ποιῶ*. Still my theory met with the approval of Schleicher Comp.[3] 812 f., while other scholars like Scherer Gesch. der deutschen Sprache p. 202 and Fick Ztschr. xx. 359 returned to Bopp's view. The notion of Bopp that the lighter passive stem e.g. *ἐμίγην* is a mere 'mutilation' of the heavier e.g. *ἐμίχθην* is the only part of his theory which we may regard as definitely antiquated.

The phonetic difference between the terminations *-θη-μεν*, *-θη-τε* etc. and the simple *ἔ θε-μεν*, *ἔ-θε-τε*, on which I formerly laid some stress, after the conclusions to which we came above p. 135 as to the vocalism of the primitive aorists, has no significance for the present question. Hence if there was once, as I consider certain, an old primitive **ἔ-θη-μεν*, **ἔ-θη-τε*, it becomes still more improbable, that by the side of this there was a second **θη-μεν*, **θη-τε*, as I formerly assumed, contracted from **θε-jη-μεν*, **θε-jη-τε*, which was preserved in the terminations of the
351 passive aorist. There remains of course the difficulty of the meaning. A verb of doing, which in cognate languages is used to form causatives, is applied in Greek to denote suffering. Scholars have attempted to make this difference of meaning intelligible from different sides by means of the usage of the primitive aorists. Pott even in the first edition of his Etym. Forsch. i. 187 compared the intransitive *-θῆ-ναι* with the intransitive *στῆ-ναι*, both as opposed to *τίθημι* and *ἵστημι*. The same notion has lately been worked out by Fick Ztschr. xx. 359 and by Inama in his well-written article 'degli Aoristi greci' Rivista di Filologia 1873 p. 279. Both scholars lay stress on the reflexive meaning as an intermediate between the active and the passive. It cannot indeed be denied that the intransitive meaning attaches to several primitive aorists as distinguished from other forms from the same root. Of 26 such formations with an active termination this is the case with 7, viz. in *βῆναι*, *στῆναι*, *ἀποσκλῆναι*, *ξυμβλήτην*, *σβῆναι*, *δῦναι*, *φῦναι*,

while e.g. in γνῶναι, πῖθι, κλῦθι, σχές, τλῆναι we cannot detect the slightest trace of an intransitive application. Hence we cannot speak of any extensive analogy of meaning. Under any circumstances it would still be hardly intelligible why, if the syllable θη in earlier times really had a reflexive or intransitive force, this should have survived only in composition, and not where it was used independently. Hence I hold the conjecture that this was always the case to be completely untenable. In the sharpest contrast with the roots βα, στα, δυ, φυ, which occur as intransitive in the most different verbal and nominal forms, it would be hard to establish this clearly for any form whatever belonging to the rt. θε. Hence I hold it to be idle to ascribe to the syllable θη itself the intransitive force which comes out so clearly in the passive aorists. Besides, this would create a separation between the forms in θη-ν on the one side and those in -θο-ν, -θω on the other along with the weak past tense in the Teutonic languages, which we are hardly entitled to assume.

The correct view seems rather to be the following. We must give up treating the appended syllable as the immediate sign of the force which appears in the usage of these forms. Scholars were not previously 352
sufficiently aware of the interval which exists between the time at which a category of forms originated, and the time, often long subsequent, at which their employment became fixed. The agreement of so many languages proves that even before their separation the composition of more significant roots with the root *dha* 'do' was carried out tolerably extensively. We cannot talk of a special force for formations of such a kind, for every verb in itself denotes an activity, and it is tolerably unimportant whether the exponent of the conception of activity is expressed or omitted. The periphrastic use of the verb 'do' in German dialects, e.g. 'er that kommen' and in English e.g. 'did you come?' 'he did not come,' presents us with a parallel from a later period of language to what we assert for the earlier period. Such compositions with *dha* were then, I believe, used at a much later period, during which men were no longer conscious of their origin, in order to complete in various ways the system of verbal forms which was gradually becoming more widely ramified, and to fill up deficiencies, which had originated owing to phonetic losses. In this way the Teutonic weak verbs got their past tense, though in the rt. *do*, which in the French *actuel* expresses rather the present time, certainly nothing is contained which could point to the past. Thus the aorist stems in -η and -θη, which in their form were active, came to be used as intransitive and passive. The former formation has been thoroughly discussed above. We were able in that case to discover many intermediate links and stages for the developement of meaning. A similar service is done for us here by the forms in which θ is connected with the ordinary thematic vowels.

As to the phonetic relation between these forms in -θω and -θο-ν and those in -θη-ν, we can hardly feel any doubt. In discussing the verbs which follow the older method of inflexion we have seen repeatedly that all the so-called verbs in -μι have a tendency to follow the stream of the verbs in -εω, which in time overspread everything, and that in two ways, the thematic vowel on the one hand being added to the final letter of the primitive stem, or the final primitive vowel on the other changing into the thematic vowel. In the first way from -νᾰ-μι (νη-μι) came 353

-νά-ω, from *νῡ-μι* *-νύ-ω*, from **βᾱ-μι* **βά-ω*, from **στᾱ-μι* *στάω* (Lat. *sto*), from **θη-μι* the **θέω* occurring in the Homeric *προ-θέουσι*, in the other from *-να-μεν* *νο-μεν*, from *ἔ-θε-ν-το* *ἔ-θο-ντο*, from *ἰε-ίη-ν* *ἰο-ίη-ν*. In the same way we have in the case of the formations in *θ* three stages:

1) those with the final letter of the root retained *-θη-ν*, *-θη-μεν*, e.g. *ἐσχέθην*:

2) those with an added thematic vowel: *ὀρέχθεον*, *γηθέω*:

3) those with a thematic vowel taking the place of the final vowel of the root: *πλη-θω*, *ἔ-σχε-θο-ν*.

The second class of forms is quite small in number; the third was limited to some tentative forms of the earlier time, which were afterwards almost entirely lost. There was no definite force attached, as we saw above, but the intransitive usage was prevalent. It was only the first class with its archaic inflexion, which became an important part of the verbal system, and which adopted throughout the intransitive and passive force. I do not consider it impossible that aorists of the lighter formation like *ἐχάρην*, *ἐμίγην*, *ἐδάην*, *ἐτράπην* preceded them in this course, and that the completely similar terminations of the two groups of forms contributed to bring them near to each other in meaning also, or, to put it more exactly, that the forms with *-θη*, originally less differentiated, by degrees under this influence practically dropped altogether the active force, and established themselves for the most part only in an intransitive or passive sense. As every one knows, there was no period of the Greek language which was entirely without passive aorists in *θ* which were used in connexion with a middle present quite as active, and in fact sometimes as transitive, as in Homer *ἀλήθην* *ξ* 120, *αἰδέσθητε* *β* 65, *νεμεσσήθητε* Π 544, *πειρηθῆναι* Ε 220, later *ἐβουλήθην*, *ᾠήθην*, *ἐδυνήθην*, *διαλεχθῆναι*, *πορευθῆναι*. We may recognize in these traces of an indefiniteness originally much more extensive.

CHAPTER XX.

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THE VERBAL ADJECTIVES.

All participles may properly be called verbal adjectives in the wider sense, as we saw on p. 2, inasmuch as their nature is essentially that of adjectives, while they share the various characteristics of the verb. But the name is restricted in practice to two Greek formations which are distinguished from participles by the fact that they share to a much less degree than these do the specifically verbal varieties of meaning. The participles, in spite of their adjectival character, are capable of denoting the 'kind of time,' and in part also (partic. futuri) the 'grade of time'; and are distinguished from each other by a definitely regulated division into active, middle and passive. Hence, in respect of their form, the difference between the unstrengthened verbal stem and the expanded present stems, and the whole multiplicity of the tense-formation are expressed in the participles. In consequence of this every participle belongs to some one definite tense-stem. On the other hand from each verb there is only one pair of verbal adjectives, which for this very reason are derived from the verbal stem, and only here and there adapt themselves exceptionally in particular cases to the present stem.

The only power shared by the verbal adjective with the verb is that of serving for predication in a higher degree than any ordinary adjective, and of being capable of the distinction between active and passive, though with a decided preference for the latter. Considering the close affinity of meaning between the most usual verbal adjective and the participle, we can easily understand how in those languages in which the variety of the tense-stems falls quite into the background, e.g. in Latin, the verbal adjective is reckoned among the participles.

Of the two verbal adjectives, which were at the command of the Attic language in the case of every verbal stem, one, that in *-το*, which 355
is most extensively in use from Homer onwards, finds a parallel in all the other Indo-Germanic languages. We can hardly doubt that an adjective with the suffix *-ta*, used essentially with a passive force, belonged to the stock of nominal forms closely connected with the verb, which we may assume as existing at the time preceding the separation of the languages. Referring for details to Bopp Vergl. Gr. ii. § 818, and Schleicher Comp.[3] p. 421 ff., I content myself here with setting forth the entire agreement of the Greek formation with that of the cognate languages in the case of a number of simple and evidently very ancient forms.

βα-τό-ς=Skt. *ga-tá-s*

γνη-τό-ς (cp. *διό-γνητο-ς*), Lat. *gnā-tu-s* Goth. *airtha-kun-th-s* 'earth-born.'

γνω-τό-ς=Skt. *ǵñā-tá-s* Lat. *gnō-tu-s*

δο-τό-ς=Zd. *dâtô* Lat. *dă-tu-s*
ζευκ-τό-ς=Skt. *juk-tá-s* Lat. *junc-tus*
κλυ-τό-ς=Skt. *çru-tá-s* Zd. *çrū-tō* Lat. *(in)-clu-tu-s*
πεπ-τό-ς cp. Skt. *pak'-a-ta-m* (cooked) Lat. *coc-tu-s* Lith. *kép-ta-s*
τα-τό-ς=Skt. *ta-tá-s*
φερ-τό-ς=Skt. *bhṛ-tá-s.*

The verbal adjective in *-τέο-ς* is quite unknown to the language of Homer as denoting necessity,—the force which it afterwards usually has —as has been noticed by Kühner Ausf. Gr. i. 716 and Leo Meyer Vergl. Gr. ii. 383. But we may find a precursor of this formation in the Homeric *νη-γάτεο-ς*, used indeed only of articles of clothing (B 43, Ξ 185), but still doubtless rightly referred to **νεή-γα-το-ς* as the verbal adjective from the rt. *γεν* (cp. *γέ-γα-μεν*). But **γα-τεο-ς* is to the presumable **γα-τό-ς* (cp. *τηλύ-γετο-ς*) as *δο-τέο-ς* is to *δο-τό-ς*. In Hesiod we find the form *φατειός*, only in the thrice recurring formula *οὔτι φατειός*=*infandus*, and in usage not differing much from the Homeric *ἀθέσφατος*. The passages are Theog. 310, Scut. 144, 161. It is only in Herodotus and onwards (*διωκτέος*, *δοτέος*) that we find the forms in *-τέο-ς* with their well-known force firmly established. From Aeschylus I have one solitary instance in my collections: Choeph. 298 *ἐργαστέον*: there
356 are far more in Sophocles and Euripides. But Plato, Xenophon, and Aristophanes are the earliest writers who supply them in great abundance.[1] Evidently this second verbal adjective, as Kühner i. 716 remarks, belongs quite especially to the colloquial Attic. These facts are of some importance in the enquiry into the origin of the suffix *-τέο-*. This is commonly compared with the equivalent Skt. *-tavja*. So Bopp Vergl. Gr. iii. § 902, Schleicher Comp.[3] p. 382. The phonetic possibility of the agreement of a *dātavja-s* with the Gk. *δοτέο-ς* cannot be denied. The suffix *-tavja* might in Greek become first *-τεϝjο*, then *-τειο*, and finally *-τέο*. The second stage, to which *φατειό-ς* quoted above bears witness, would be a parallel to *ἀστεῖο-ς*, which has certainly come from *ἀστεϝ-ιο-ς*, though it does not undergo a further reduction from *ει* to *ε*. An analogy for the latter might perhaps be sought in the Homeric *βαθέη*=*βαθεῖα* for *βαθεϝ-ια*, *ὠκέα*=*ὠκεῖα* for *ὠκεϝ-ια*. The only question is whether the comparison of the two suffixes has on other grounds so much in its favour, that we are compelled by overpowering reasons of probability to assume such a considerable mutilation. Now these can scarcely be said to exist. As we have seen, *-τέο-ς* in its ordinary force is unknown to the Homeric poems: *-tavja-s* according to Delbrück Altind. Verb. p. 238 is unknown to the Rigveda. This fact of itself is of some weight as against the identification. In the cognate languages no trace of this suffix has been anywhere pointed out. For though some scholars were formerly inclined with Bopp u. s. to refer the Latin suffix *-tīvo*, e.g. *datīvu-s*, *captīvu-s*, to the same source, this view, attacked already by Schleicher Comp.[3] 382, must be unconditionally surrendered. From *-tavja-s* we could at most get to *-tĭviu-s*, never to *tīvu-s*.

[1] The industrious 'Quaestiones de adjectivis graecis quae verbalia dicuntur' by Moiszisstzig, which are buried in a series of programmes of the gymnasium at Konitz, I have only been able to hunt up in part. According to the 'Particula' which appeared in 1868 of verbals in *-τέος* there are 'non ita multa apud lyricos vates et Aeschylum, perpauca apud Herodotum, nec plura apud Thucydidem, apud posteriores innumerabilia fere.'

Besides, the Skt. suffix *-tav-ja* has evidently arisen out of the suffix *-tu-* by adjectival expansion. Hence *-tav-ja* attaches itself to the infinitives 357
in *-tavē* (e.g. *gātavē*, *dātavē*) and *-tavāi* (e.g. *dātavāi*), so common in the Veda, and to the later accusatival infinitives in *-tū-m*. Now the suffix *-tū* in the form of *-τυ* is by no means unknown to Greek (e.g. *ἰτύ-ς*, *ἐδη-τύ-ς*) but it is not used with an infinitive force, nor does it anywhere show a trace of the by-form *-tav*, produced by intensification, which must be presupposed for the further formation *-tav-ja*.

Again the support, which some have thought they could find in the similarity of meaning, is not so strong as it seems to be. For modal applications of adjectives of this kind are demonstrably not very ancient, as we can see by comparing the Latin *datu-s* with the Greek *δοτό-ς*. If there had been a verbal adjective provided with the definite function of the participium necessitatis in the time before the separation of languages, we may be sure that this would not have been lacking in the Rigveda. Besides, this formation was at no time the only one in use for such a purpose in Sanskrit. Taking all together, I believe that the correspondence of *-tavja-s* and *-τέο-ς* is merely apparent, and that we must rather regard both formations as products of the separate life of the two languages.

The suffix *-τέο* I regard as an expansion of *-το*. *δο-τέο-ς* is related then to *δο-τό-ς* as *ἠγάθεο-ς* to *ἀγαθό-ς*, *δαιδάλεο-ς* to *δαίδαλο-ς*, *δαφοινεό-ς* (Σ 538) to *δαφοινό-ς* (Β 308), *κνάνεο-ς* (Λ 39) to *κνανό-ς*, which we may infer from *κνανό-πρωρο-ς*, *κνανο-χαίτη-ς*, though it occurs uncompounded only in late poets, *λαῖνεο-ς* (Χ 154) to *λάϊνο-ς* (Γ 57) and much as the Hesiodic *λοχεό-ς* (Theog. 178) to the equivalent *λόχο-ς*. The suffix *-εο*, used to form adjectives from adjectives with little or sometimes absolutely no change of meaning, can hardly be very different from the suffix *-ιο*, by the addition of which *ἀπατήλιο-ς* (ξ 288) differs from *ἀπατηλό-ς* (Α 526), *ἐλευθέριο-ς* from *ἐλεύθερο-ς*, and by which *ἀεικέλιο-ς* is fuller than *εἴκελο-ς*. The close connexion between *-εο* and *-ιο* is made plain by pairs like *γηράλιο-ς* (Hesych.) and *γηραλέος*, *νηφάλιο-ς* (Aesch.) and the later *νηφαλέο-ς*. That *-εο* in the cases quoted comes from *-ειο* is made probable by *βρότεο-ς* (τ 545) beside *βρότειο-ς* (Aesch.) *βόεο-ς* (Ρ 492) beside *βόειο-ς* (Ρ 389), *χρύσεο-ς* beside *χρύσειο-ς*, both Homeric, and other instances of the kind. Various useful collections to 358
the same effect are contained in the doctoral dissertation of Aly 'de nominibus *ιο* suffixi ope formatis' (Leipzig 1873). I believe we may form a conception of the course of developement in the following way. From the earlier and shorter verbal adjectives in *-το* by-forms in *-τειο* (*φατειό-ς*) were produced in accordance with numerous precedents in the case of other adjectives: and this *-τειο* was afterwards shortened into *-τεο*. Originally there was only an imperceptible difference in meaning between this suffix and *-το*. But as by degrees a definite category of meaning arose for this formation, it became, first in Attic, more and more common and gradually a distinct verbal adjective to be expected from every verbal stem. In a precisely corresponding manner from the shorter suffix *-αλο* (*χθαμαλό-ς*, *αἴθαλο-ς*, *ὁμαλό-ς*) the much more usual suffix *-αλεο*, which Aly op. cit. points out in about 80 words, branched off by degrees. It was only during the developement of such a new category of meaning that the accent became fixed, and that not only in the verbal adjectives but also in the adjectives in *-αλέο*, on the penulti-

mate. How easily subsidiary modal meanings find their way into the usage of adjectives may be shown by the example of the adjectives in *-ιμο* e.g. *ἀγώγιμος*, *φύξιμος* (ε 359), *ἁλώσιμος* (Aesch. Ag. 10), *ἐκπετήσιμος* (fledged, Ar. Av. 1355), while the Romans derive from the formations with *l* their adjectives in *-ili-s*, *-tili-s*, *-bili-s* with cognate meanings.

In their formation the forms in *-το* and *-τεο* are most closely parallel, and were evidently felt by the instinct of language to be quite of the same nature. The verbal adjectives in *-το* show even in Homer the same characteristics, as compared with the verbal stems, as later on: *ἀγητό-ς*, *γνωτό-ς*, *τρητό-ς*, *τρώτο-ς*,—*ἐρᾰτό-ς*, *κρῐτό-ς*, *χῡτό-ς*,—*ὑφαντό-ς*, *ἀσπαστό-ς*, *ἄπρηκτο-ς*, *ῥαπτό-ς*. The quantity in the vowel-stems and the accessory *σ* will occupy us in the next chapter. In the case of consonantal stems, just as in the perfect middle, there is a fluctuation between the short root-vowel and the intensified vowel of the present: on the one hand *τυκ-τό-ς* (*τυκτήν* ρ 206, *εὔτυκτον* Γ 336, cp. *τέτυκται*), on the other hand *νεοτεύκτου* Φ 592 (cp. *τετεύχαται*), on the one hand *πιστό-ς* from Homer onwards (Ο 331, cp. *ἐπέπιθμεν*), on the other *πει-*
359 *στέον*, from Sophocles onwards, *εὔπειστος*, the latter forms in meaning too coming nearer to the present stem, *ῥηκτό-ς* (Hom.), *τηκτό-ς* (Soph.), *λῃπτό-ς* (Plato), *διάμειπτος* (Sappho), *ἐξαλειπτέον* (Lysias), *φευκτό-ς* (Soph.) beside *ἄλαστος* (Homer), *ἄπυστος* (Homer), *πυστέον* (Plato). There is a very strange form *εἱμαρτό-ς* (Plut. Alexand. 30), which may serve to show us how strongly was felt the analogy of the verbal adjectives to the 3 sing. perf. mid. On the other hand *στορνυτέα· καταστρωτέα* preserved by Hesychius is due to the intrusion of the present stem. The distinction between the dialectic *βελτός*, also preserved by him, and *βλητός* is purely phonetic.

In Sanskrit and in Latin two ways of attaching the suffix to the stem are in use: viz. either immediately: Skt. *juk-ta-s* Lat. *junc-tu-s*, or by means of an *i*: Skt. *kup-i-ta-s*, Lat. *gen-i-tu-s*. In Greek this two-fold character is known only to a small extent. Sometimes *ε* acts as an apparently inserted vowel here; but upon closer consideration we can see that it is a stem-expansion, as in *γαμε-τή* (Plato), *εὑρετό-ς* (Xen.), *εὑρετέο-ς* (Thuc.), *ἀμάχετο-ς* (Aesch.), *μαχετέο-ν* (Plato) beside *μαχητός* (*μ* 119), *μενετό-ς* (Thuc.), that is in verbs of the *e*-class alone, which in *γαμέω*, *εὕρεσις*, *μαχέσομαι*, *μεμένηκα* show other traces of an appended *e*. There is an unique instance in *ἑλετό-ς* I 409 formed from the aorist-stem with the thematic vowel; to which we may add *ὑπελθετέον* quoted from Strabo xiii. 622. The same *e* appears in some adjective and substantive forms, which, though not felt any longer to be proper verbal adjectives, yet in their origin can hardly have been different, like *ἀρι-δείκε-το-ς* (Homer), *ἀ-μαιμάκε-το-ς* (Homer), *σκελε-τό-ς*, *πάχε-το-ς* (*θ* 187), *δακε-τό-ν*, *ἑρπε-τό-ν*. The masculine adjectives in *-το-ς* and the feminine in *-τη* which have become substantives and denote actions, like *ἔμε-το-ς* (cp. *vomi-tu-s*), *νιφε-τό-ς*, *ὑε-τό-ς*, *κάπε-το-ς*, *ἀρε-τή*, (cp. *ἀρέ-σκω*), *γενε-τή* (cp. *geni-tu-s*), *τελε-τή* and others serve to confirm this view. In such substantives we sometimes find in Sanskrit an *a* instead of the *i*, e.g. *paka-tá-s* fire (*pak* cook), *mara-tá-s* death, which makes it very probable that there was once an *a* in this place, just as in the Gk. *ἀκάμα-το-ς*, *ἀδάμα-το-ς* (cp. *domi-tu-s*), *θάνα-το-ς*, and that the *ε* as well as the Indian and Latin *i* are only phases of this *ă*, in which
360 perhaps we ought to see nothing but the thematic vowel. As this

vowel elsewhere characterises the present or aorist stem, we may regard the stems appearing before the suffix *-ta* to a certain extent as present or aorist themes, a view which has forced itself upon us irresistibly already in the case of *ἐλθετέον*. In the vocalism of the root-syllable also we found clear traces of the extension of the present stem to this place.

Finally we have still to say a word as to the meaning of these forms. A large number of the forms in *-το*, e.g. *βροτός, γνωτός, θνητός, κεστός, κλυτός, πονητός* always continued to be purely participial; and here, especially in the case of compounds, we may notice the freest interchange between the more usual passive and the rarer active force. Thus *ἀναίσθητος* means insensible, *ἄπρακτος* sometimes ineffectual, *ἀνέλπιστος* not merely unexpected, but also hopeless, *πάμφθαρτος* all-destructive. But even the simple *μεμπτός* in Soph. Trach. 446 means blaming. Cp. Kühner Ausf. Gr. i.[2] 715. A glance at the active participles of the Latin deponents like *nactu-s, usu-s, locutu-s, potitu-s* is sufficient to make this interchange much less surprising than it might seem to be at first sight. Even in the suffix *-τεο* we find an interchange between the personal passive application, *ἡ πόλις ὠφελητέα* and the neuter active *τὴν πόλιν ὠφελητέον*. The modal force of possibility probably established itself quite as imperceptibly in the verbal adjectives in *-το*, e.g. in *ἄϊστος, ἄπυστος*, as in the Latin participles *invictu-s, acceptu-s* and in the adjectives in *-ιμο-* mentioned above. Still even in Homer there are unmistakeable cases of it: e.g. B 361 *οὔτοι ἀπόβλητον ἔπος ἔσσεται ὅττι κεν εἴπω*, I 526 *δωρητοί τ' ἐπέλοντο παράρρητοι τ' ἐπέεσσιν*, A 573 *οὐδ' ἔτ' ἀνεκτά*, I 409 *ἀνδρὸς δὲ ψυχὴ πάλιν ἐλθέμεν οὔτε λεϊστὴ οὔθ' ἑλετή*, Z 434 *ἔνθα μάλιστα ἀμβατός ἐστι πόλις*. Indeed in the lack of a verbal adjective of necessity the Homeric language sometimes applies the verbal adjectives in *-το* in a manner which approximates closely to the later usage of those in *-τεο*, e.g. *τ* 260 (=*τ* 597, *ψ* 19) *Κακοΐλιον, οὐκ ὀνομαστήν*, *θ* 307 *ἔργα γελαστά*.

Afterwards the modal application evidently constantly grew more common. But in time, in the case of a large number of the numerous adjectives compounded with prepositions, the delicate distinction pointed out by Lobeck Paralipomena p. 477 sqq. established itself, that the barytones e.g. *διάλυτος*=*solutus* were used purely participially, the oxytones e.g. *διαλυτός*=*dissolubilis* with a modal force. Evidently the accent in the case of the latter raises the syllable, on which it is placed, to a more decided force (cp. Kühner Ausf. Gr. i.[2] 415). 361

CHAPTER XXI.

IRREGULARITIES OF THE VOWEL STEMS IN THE FORMATION OF THE PERFECTS, FUTURES, PASSIVE AORISTS AND VERBAL ADJECTIVES.

Now that we have discussed all the essential groups of the Greek verbal system which can be shown to be in frequent use, we must enter upon an irregularity which extends tolerably deep into the structure of the verb. We have already repeatedly touched upon the abnormal phenomena, which may be detected, in the case of vowel stems, in the formation of tenses, consisting partly in the varying quantity of the stem-vowel, partly in the apparently very capricious insertion of a *σ*. The sphere over which this irregularity extends, includes the perfect stem, especially the perfect middle, the future stem, the sigmatic aorist, the passive aorist with *θ* and the verbal adjectives. This was the reason why we reserved this phenomenon for a general discussion at the end; though this cannot claim to be exhaustive, for that would require very extensive material derived from nominal formation, which is foreign to our present purpose. My aim at present is chiefly to bring the processes belonging here into the correct points of view, of which some, I hope, may be clearly established.

In sharp contrast to the stems ending in consonants, the union of
362 which with the appended tense-forming syllables hardly ever shows any variation, the final vowel of a stem in the groups mentioned is sometimes long, (and this is the rule) e.g. *βήσω, ἔνησα, δεδάκρῡσαι, ὀρθωθείς, ἀδήρῑτος*, sometimes short, e.g. *γελάσομαι, αἰδέσασθαι, κέχυται, δοθῆναι, φθιτός*, and sometimes after short, sometimes after long vowels in the perfect middle, in the passive aorist, and in the verbal adjectives there appears what seems an extremely strange, and hitherto insufficiently explained sigma, e.g. *ἔσπασται, ἐπρίσθη, γνωστός*. Nominal formations like *βῆμα, ὄρθωσις* beside *δότης, χύσις, φθίσις* and *σπασμός, πρῖσμα, ἀναγνώστης* show the same variation in the stem. These different phenomena are unmistakeably connected with each other to a certain extent, but it is by no means possible to explain them on any single principle. We must for the present be satisfied with dividing them into two groups clearly distinct one from the other, and only touching each other here and there: viz.

I. FORMS WITH A SHORT VOWEL WITHOUT *σ*.

Roots which follow the primitive conjugation generally leave their vowel short in tense-formation as in nominal formation, e.g. *δέδοται, ἐτέθη—δόσις, θέτης, θέμα, φάτις*. Here the short vowel is properly in no way surprising. For why should not the root, which shows itself to have a short vowel also e.g. in *ἔδομεν, ἔθετε, ἔφασαν*, do the same in the

cases mentioned? If side by side with these the long vowel now and then appears, e.g. in *δώσω, ἔστηκα* (beside *ἔστᾰμεν*) in *δῶτορ, θήκη*, we may compare this difference with the interchange which exists between *φαμέν* and *φημί, ἴμεν* and *εἶμι* (cp. p. 96 ff.).

A very uncertain vocalism was to be seen also in the cognate primitive aorists like *βήτην* and *βᾰ́την, ἔθεμεν* beside Skt. *a-dhā-ma*, as was pointed out on p. 135. The proper origin of this interchange of quantity has not indeed been discovered by any means as a rule, but it extends over a wide circle of similar forms, and may be summarily expressed in the statement that in the case of vowel-roots where there was immediate affixing the language had at its command not only the original short vowel, as we take it to be, but also the long one proceeding from it. 363
Why indeed in *δώσω, ἔστησα, ἔθηκα, δέδωκα* the long vowel prevails, in *ἐδόθην, στᾰτός, δέδοται* the short one, might be hard to determine. Only so much may be noticed, that the middle perfect, the passive aorist and the verbal adjective incline most to the short syllable. Now the primitive inflexion is not separated by an abyss from the thematic. On the contrary, from the earliest times there were transitions from the one into the other, so that the primitive verbs are everywhere interlaced with thematic forms. On the other hand from the so-called verbs in *ω* there are several by-forms of primitive stamp, e.g. *βῆναι, βιβάς, βέβαμεν* beside *βαίνω, λύτο* beside *λύω*. Hence it is certainly allowable to bring short vocalic forms in such cases too into connexion with the primitive method of inflexion, and so to put e.g. *βέβᾰ-μαι, ἐ-βᾰ́-θη-ν* beside *δέδο-μαι, ἐ-δό-θη-ν*, in this way explaining the difference of the former from *τετίμη-μαι, ἐ-τιμή-θη-ν*. In other words, we take this first class of forms to be remains of the older method of formation, which often united with others following a later rule into a unity of verbal usage. In this way we may explain the following 15 cases:

1) Rt. *βα*. The extant primitive forms have been discussed more in detail on pp. 126 f. and 387. Hence come *παραβεβάσθαι* Thuc. i. 123, *παραβαθῆ* Thuc. iv. 23, *ἄμβατος* (Homer), and also *βάσις, βάθρον, βαθμός*, but *βήσω, ἔβησα, βέβηκα—βῆμα*.

2) Rt. *δε* bind. *δίδη* p. 105. Hence come *δέδεκα* Demosth., *δέδεντο κ* 92, *δεθείς* Soph. Aj. 108, *συνδετέον* Aristoph. Eccl. 785, and also *δέσις*, but *ἀννπόδητος, διάδημα*.

3) Rt. *δο* needs no references. *δέδοται, ἐδόθη, δοτός, δοτέος* are in use in all Greek, as well as *δοτήρ, δότης, δόσις*. On the other hand *δώσω, ἔδωκα, δέδωκα* and *δῶτορ ἐάων* (*θ* 335), *δῶτις, δωτίνη*.

4) Rt. *δυ*. For *ἔδῡν* etc. cp. p. 129. Hence *ἐνδεδῡμένην* Menand. Com. iv. 199, *ἀποδῦθῇ* Aristoph. Ran. 715, *ἄδῡτος* Hymn. in Merc. 247, *δύσις*. The length of the *ῡ* in the present is certainly due to a **δυιω* after the I-class, formed on the analogy of *φυίω* quoted as Aeolic. Cp. p. 147. Also *δύσω, δύσομαι, δύσετο, δέδυκε* (I 239), not before the Anthology (v. 73) *ἐκδέδῡκας*.

5) Rt. *ἑ*. *ἵημι* etc. *ἐθῆναι* (Plat. Pol. 270 *ἀνεθῇ*), *ἀνεθήσομαι* Thuc., 364
ἀνετός Plat., also *ἔσις, ἀφέτης*, but on the other hand *ἧκα, ἀφήτωρ* (I 404).

6) Rt. *θε*. *τίθημι, ἐτέθην, τεθήσομαι, θετός*, also *θέμα, θέσις, ἀγωνοθέτης*, on the other hand *θήσω, ἔθηκα—θήκη*.

7) Rt. *ἰ, εἶμι, ἴμεν—πρόϊτος, ἰτέον*, also *ἴτης, ἰταμός*—on the other hand *εἴσομαι Ξ* 8, *εἰσάμην* E 538.—*οἶτος, οἶμος, οἴμη*.

8) Rt. λυ. *λύτο* Φ 114, cp. p. 129. *λέλῡμαι* Aesch. Pers. 592, *λύθεν* θ 360, *λῡθέντων* Eurip. Hel. 860, *λῡτός*. In *λέλυκα* it is generally assumed that the *υ* is short, but the only passage quoted for it by Veitch (Aristoph. Vesp. 992 *ἐξηπάτηται κἀπολέλυκεν οὐχ ἑκών*) decides nothing. But Choeroboscus, ed. Gaisford ii. p. 548, 26 (cp. Buttmann Ausf. Gr. i.[2] 388) bears witness to its short vowel. Also *λῡσις*, *λῡτήρ*, *λύτρον*. On the other hand *λύσω*, *ἔλῡσα* and in the present *λύω* from **λνίω*, but also with a short *υ*; cp. p. 148.

9) Rt. *πο*. *σύμπωθι* and *πῶ* Aeolic imperatives: cp. Ahrens Aeol. 140. *ἐκπέποται* χ 56, *ἐκποθέντ'* Aesch. Choeph. 66, *καταποθήσομαι* Ar. Vesp. 1502, *ποτός*, *ποτέος*, and also *πότος*, *ποτήριον*, but *πόμα* (Pind.) and *πῶμα* (Eurip. Plat.), *πέπωκα* like Lat. *pōtus*, *pōculum*.

10) Rt. *στα*. *ἵστημι* etc. *διεσταμένος* (Plat.), *ἐστάθη* ρ 463 (also Attic), *στατός*. Also *στάσις*, *στατήρ*, *ἐπιστάτης*, *σταθμός*, but *στήσω*, *ἔστησα*, *διάστημα*, *στήμων*.

11) Rt. *συ*. *σύτο*, *σύμεναι* p. 130. *ἔσσῡμαι* N 79, *ἔσσῡτο* Ξ 519, *ἐσσῡ́θη* Soph. Aj. 294, *ἐπίσσυτος* (Aesch.), on the other hand *ἔσσευε*, *ἔσσευα*.

12) Rt. *σεχ*, by metathesis *σχε*, *σχές* p. 132, *ἔσχεθον* (p. 501), *ἐσχέθην* (post-Attic), *σχετός*, also *σχέσις*, *σχέτλιος*, but *ἔσχηκα*, *ἔσχημαι* (Attic), and *σχῆμα*.

13) Rt. *φθι*. *ἐφθίμην* p. 129. *ἔφ' ῑ̆μαι υ* 340, *ἔφθῑσο* Aesch. Sept. 970, *ἔφθῑθεν* ψ 331, *φθῑτός* Aesch. Pers. 523, *ἀποφθίσειν* Soph. Aj. 1027: also *φθίσις*. But *φθίσονται* Λ 821.

14) Rt. *φυ*. *ἔφυν* p. 130. The only evidence for the short vowel is *φῠτόν* (e.g. Ξ 123) which has become a substantive, with its numerous derivatives (*φῠτεύω* etc.) and *φύσις*. The long vowel prevails in *φῡ́σω*, *ἔφῡσα*, *πέφυκα*.

15) Rt. *χυ*. *ἔχῠτο* p. 130. *συγκέχῠκε* Menander Com. iv. 294, *κέχῠτ(ο)* Υ 421, *χυθείη τ* 590, *χυτή* Ζ 464. Also *χύσις*. On the other hand *χέω*, *ἔχευα*.

365 Besides these 15 instances, for which we have evidence of the primitive inflexion, the short vowel without *σ* appears in a number of stems, to which forms in *ν* correspond. To these belong

κλι	*κέκλικα*	*ἐκλίθην*	*κλίτος*	but	*κλῑτύς*
(*κλίνω*)	*κέκλιμαι*		*κλίσις*		*κλῖμαξ*
			κλίμα		
κρι	*κέκρικα*	*ἐκρίθην*	*κριτός*	but	*κρῖμα*
(*κρίνω*)	*κέκριμαι*		*κρίσις*		
			κριτής		
πλυ	*πέπλυται*	*πλυθήσομαι*	*νεόπλυτα*		
(*πλύνω*)	Com. iv. 482, 3	Com. iv. 647	ζ 64		
τα	*τέτακα*	*ἐτάθην*	*τατός*		
(*τείνω*)	*τέταμαι*				
τι			*ἄτῑτος*	but	*ἄτῑτος*
(*τίω* and *τίνω*)			N. 414		Ξ 484

It is hard to decide whether here the shorter stems are treated on the analogy of those inflected primitively, among which the rt. *φθι* most resembles them, or whether a loss of the nasal leaving the vowel short has taken place. The form *κατέκτᾰθεν* E 558 beside *ἀπέκτᾰν* is in favour of the latter view. The conjecturally Boeotian *ἐβάθη* mentioned on p. 499 is exactly like it.

According to the view just proposed there is no place for a σ in these verbs, and as a matter of fact forms like *βαστός, *ἐστάσθη, *δοστός and the like are quite unknown, and even if solitary instances of the kind like ἐβάσθη do occur at a very late date, this is to be regarded only as an aberration of the failing instinct of the language. But nevertheless some few sigmatised nominal forms belonging to such stems occur in the best period. They are the following: θεσμός (in Homer only in ψ 296 beside θέμα, θέμις, θέσις), which we may suppose to come from the reduplicated root θε-θ(ε), much as the Skt. participle *datta* for *da-da-ta* from the rt. *da*, hence the Doric τε-θ-μό-ς, e.g. Pind. Ol. vi. 69. The earlier form for both the dialectically differing formations would thus be *θε-θ-μό-ς. The θ might become σ, as in the perfect forms λελα- 366
σμένος, πέπυσμαι quoted on p. 420, which occur as early as Homer. On the same principle we might be disposed to refer the forms δεσμός, δέσματα, which are common even in Homer, to δε-δ-μό-ς. But there is a lack of positive support for this, such as was supplied before in τεθμός. Hence I conjecture that the rt. δε was expanded to δε-θ, as the root βα was in βα-θ-μό-ς, and that then the θ was changed before μ into σ. Herodotus's δυσμή beside δυθμή (Callimachus fr. 539 ed. Schneider) is especially in favour of this explanation. Perhaps we must take in the same way the Homeric κλισμός beside κλίμα. The form φύστις beside φύσις would be extremely strange. But the more recent editors are certainly right in banishing it from the only passage in which it was formerly read (Aesch. Pers. 926), in favour of ταρφύς τις (for γὰρ φύστις), the emendation of Franz.

II. FORMS WITH σ.

To this second division belong forms like ζέσω, ζέσις, τετέλεσμαι, ἀτέλεστος. The language of Homer has here often retained in the future and the sigmatic aorist a double σ, e.g. ἔσσω (ἔννυμι), ζέσσα, ἐτέλεσσα. Evidently the first of these two sibilants is of the same origin as that which was always retained in forms like ἐτελέσθην, ἄσβεστος, and which has often been regarded as 'inserted.' The shortness of the penultimate in ἔζεσα, ἐτέλεσα is due to the reduction of the double σ to a single one, which begins even in Homer, and has become the rule in the Attic ἐρέσαι beside the Homeric ἐρέσσαι, κομίσαι beside κομίσσαι, but also in ὄρεσι beside ὄρεσσι, ὅσος beside ὅσσος. The explanation for the verbal forms mentioned is based upon the proof that the stem originally ended in a dental consonant, which before τ, θ, μ often maintained itself as σ, but was assimilated to a following σ, and in this latter case finally disappeared altogether. The most comprehensive investigation for the purpose of clearing up the phenomenon on this principle is that of Leskien Stud. ii. 68 ff. Earlier grammarians contented themselves with the assumption of a 'strengthening' sigma. But how little the short vowels needed such strengthening is proved incontrovertibly from the formations which we have discussed above under the first division. Why ἐδόθην but ὠιύσθην, why δέδεται but 367
τετέλεσται? In the case of long vowels and diphthongs the assumption of a σ on purely phonetic inducements would be quite inconceivable, and yet we find πέπλησμαι, ἠκούσθη, σειστός. The assertion that the doubling took place 'metri gratia,' often repeated for certain forms, might have

been easily disproved, if only by the well-established distinction between *δώσω, φύσω, ἔβησα* on the one hand, and *ὄμοσσα, ξέσσα, κλάσσε* on the other. However scholars have not succeeded hitherto in giving the desired proof in each particular case. We also must be content with establishing the principle by a number of indubitable instances. It will be proper in doing so to treat the radical verbs and the derived ones separately.

A) Radical Verbs.

a) Roots originally ending with a sigma.

In the case of these the *σ* apparently inserted is really retained as the final letter of the root. The shifting of the original relation does not lie with the future, aorist, perfect or passive stem, but rather with the present, where however it is easily explained from the most familiar phonetic laws. Here belong 14 verbs, viz.

1) St. *ἀϝες*, from *ϝες*=Skt. *vas* dwell, to stay, live.

In Princ. i. 484, following Lobeck, I referred the Homeric aorist *ἄεσα*, plur. *ἀέσαμεν* e.g. *τ* 342, *γ* 151 to the rt. *ἀϝ* breathe. But Leo Meyer Ztschr. xxii. 530 shows that this aorist along with the *ἰαύω* which belongs to it, never denotes sleeping proper, but only spending (*νύκτα μὲν ἀέσαμεν*), and hence justly concludes that *ἀϝες*, expanded by the prothetic *ἀ* is identical with the equivalent Skt. rt. *vas*. *ἄϝεσα* is therefore for **ἄ-ϝεσ-σα*. [Cp. Grundz.[5] p. 387.] It is only in the shortness of the middle syllable that the sigma still shows itself. *ἄσαμεν π* 367 is due to contraction.

2) St. *αὐς, εὐς*. Cp. Princ. i. 496. The root is *us*, preserved in Skt. *ush*, Lat. *us* (*uro*) burn. The *σ* is preserved only in the nominal forms *εὔστρα, εὔσανα, ἔνανσμα*.

3) Rt. *βδες*=Lat. *vis* (*visio*) Princ. i. 284. *βδέσ-μα*.

4) St. *γευς* intensified from *gus*, as the root appears in Skt. *ǵush*
368 and Lat. *gus-tu-s* (Princ. i. 216). The *σ* is preserved only in *γευστός* (Aristot.) *ἄγευστος* (Soph.), *γευστέον* (Plato). *γέγευμαι, γεῦμα* follow the present.

5) St. *ἐρας* interchanging with *ἐρα* in the inflexion of *ἔραμαι*. *ἐρας* with Fick i.[3] 187 I compare with the Skt. *lash* for **ras* desire. Hence *ἠράσ-σα-το* Υ 223, Archil. fr. 30 Be.[3], *ἐρασθείς* Aesch. Pers. 826, *ἐρασθήσεσθε* Aesch. Eumen. 852.

6) St. *ϝερυς* for *ϝερς*=Lat. *vers* in *verrere*. Cp. Stud. vi. 265 ff. Hence fut. *ἐρύσσεται* K 44, *ἐρύσσεσθαι φ* 125, aor. conj. *ἐρύσσομεν* A 141, *εἰρύσθην* Hippocr., *ἐρυστός* Soph. Aj. 730. The reduction of *σσ* to *σ* begins even in Homer e.g. *ἐρῦσαιτο* Θ 21.

7) Rt. *ϝες* clothe=Skt. *vas*, Lat. *ves* (Princ. i. 470). For *ἔννυμι* cp. p. 114. Fut. *ἕσσω π* 79, aor. *ἔσσον* Π 670, *ἕσσας ξ* 396, 2 sing. plupf. mid. *ἕσσο* Γ 57, *ἐσ-θής* beside *ἀμφιέσω ε* 167, *ἀμφιέσαιμι σ* 361. Ar. Equ. 891 *προσαμφιῶ*.

8) Rt. *ζες*=Skt. *jas* seethe, boil, O. H. G. *jësan* (Princ. i. 471). *ζέσσεν* Σ 349, *ἐξέζεσεν* Aesch. Sept. 709, Herod. i. 59. *ἔζεσται* is quoted from Hippocr., *ἐζέσθην, ζεστός* from late prose, but *ζέσις* as early as Plato. *ζείοντα* Callim. Dian. 60, if based, as is probable, on an earlier tradition points to **ζεσ-jω*; also *ζείουσαν· ἀφρίζουσαν* Hesych. *ζῆλο-ς* is to be explained by compensatory lengthening for **ζεσ-λο-ς*.

9) St. ζωϛ=Zd. *yāonh, yāh* gird (Princ. ii. 263, Fick Wörterb. i.[3] 183). The σ retains its effect in ζών-νυ-μι (ω 89) and is preserved in ἐπεζωσμέναι Herod. ii. 85, in ζῶστρον, ζωστήρ (Hom.) and in the late ζωστός. On the other hand it has disappeared from ζῶμα, ζώνη from the earliest times.

10) Rt. ιαϛ=Skt. *nas* (Princ. i. 391). νάσσα ξ 174, νάσσ-ατο Hesiod Opp. 639, νάσθη Ξ 119, ἐνάσθη Eurip. Aristoph. Also μετα-νάστης (Hom.), ναίω (Z 15) for νασ-jω. Cp. p. 210.

11) St. ὀδνϛ=Skt. *dvish* hate (Princ. i. 303), ὀδυσσάμενος τ 407, ὀδώδυσται ε 423, ὠδύσθην Hesych. In a reduced form ὠδύσαο α 62.

12) Rt. σβες. If the connexion conjectured in Princ. ii. 197 with Skt. *çvas*, which according to the more recent lexicographers means only breathe, snort, is uncertain, [cp. Grundz.[5] p. 573] yet σβέν-νυ-μι beside σβέσσαι Π 621, ἐσβέσθην (Plat.), ἄσβεστος (Α 599), σβεστήριος (Thuc.), κατασβέσει Aesch. Ag. 958 point to a sigma as the last letter of the root in spite of ἔ-σβη-ν (cp. p. 128).

13) Rt. τρες=Skt. *tras* (Princ. i. 277). τρέσσε Ρ 603, ἄτρεστος Aesch. 369 Prom. 416, ἔτρεσαν Λ 745, τρέσας Soph. Antig. 1042. Beside these (cp. ζῆλος, σβῆναι) there are τρηρός, τρήρων. Cp. p. 210.

14) Rt. χριϛ=Skt. *gharsh* rub (Siegismund Stud. v. 181, Joh. Schmidt Vocal. ii. 332), χρισθεῖσα Aesch. Prom. 675, χριστός ib. 480, χρῖσμα (Xenoph.). The length of the ī comes out in χρίσω Eur. Med. 789, ἔχρῖσεν κ 364. The present χρίω is explained most simply from *χρίσ-ω (ἐπιχρίοντες φ 179, χρῖον Ψ 186).

b) Roots with an original dental explosive.

1) Rt. δατ (beside δα). For δατέομαι cp. pp. 208 and 261. It now seems to me probable that δατέομαι and πατέομαι (p. 263) are formed in exactly the same way. Hence ἀποδάσσομαι Ρ 231, δασσάμενος γ 66, δέδασται Ο 189, ἀνάδαστος (Plato), δασμός (Α 166), δάσασθαι Σ 511.

2) Rt. πατ. The evidence is given on p. 263; cp. πάσσομαι p. 221.

3) Rt. ἑδ. Cp. p. 465. ἐφέσσαι ν 274, ἐφεσσάμενος π 443 beside εἶσα p. 86.

4) Rt. ῥαδ. Cp. p. 217. rt. ῥαδ (ἐρράδαται, ἐρράδατο), hence ῥάσσατε ν 150. The passive aorist (ῥανθείς Pind.) was formed following the present ῥαίνω.

From the stem expanded by θ we may explain

5) ἐκνήσθην (κνησθείην Ar. Equ. 771), cp. above p. 501, and also

6) νενησμένοι Ar. Nub. 1203

7) πέπλησται Plat. Rep. 518, ἐπλήσθην γ 156 etc.

8) πεπρησμένος Herod. viii. 144, ἐνεπρήσθησαν Herod. v. 102 etc.

9) σεσησμένος Hippocr.

In the case of a number of radical verbs it must remain doubtful whether they are to be explained in the way just discussed, or in that which is to be discussed immediately.

B) Derived Verbs.

In the case of these it is much more difficult to understand the anomaly, because we are often without the means of determining the stems which underlie the particular forms.

For a small number of these verbs we can indeed, after what Leskien especially has collected upon the subject, consider a verbal stem ending
370 in ς as established, whether this stem was the only one, or interchanged with another. But this holds good only for

1) *αἰδέομαι*, which is derived from *αἰδες*, a by-form of the stem *αἰδος* preserved in *αἰδώς*. Hence *αἰδέσσομαι* Ξ 388, *αἴδεσθεν* Η 93, *αἰδεσθείς* Ρ 95 Pind. Aesch. Eurip., *αἴδεσσαι* Ι 640, *ᾐδεσμένος* Demosth. xxiii. 77. *αἰδες* is to *αἰδος* as Lat. *tempes* in *tempes-tas* is to *tempos* in *tempor-is*. Cp. p. 268.

2) *ἀκέομαι* with the Homeric and Pindaric by-form *ἀκείομαι* (Π 29, Pind. Pyth. ix. 104) which points to *ἀκεϝ-jo-μαι*. The verb is therefore derived from the noun-stem *ἀκες* (nom. *ἄκος* Ι 250). *ἀκεσ-τό-ς* (Ν 115) is to this stem as *venus-tu-s* to *Venus*. From *ἀκες* came also *ἄκεσσαι* Π 523, *ἀκέσσαιο* Eur. Hec. 1067, as well as the later forms with a single *σ*: *ἠκέσατ'* Ε 901, *ἀκέσασθαι* Herod. iv. 90.

3) *νεικέω* with the present form *νεικείειν* Β 277, *νείκεσσε* Η 161, *νεικέσω* Κ 115, *ἐνείκεσας* Γ 59. From the stem *νεικες* (nom. *νεῖκος*).

4) *τελέω*, *τελείει* ζ 234, *τελέσσω* Ψ 559, *ἐτέλεσσε* Μ 222 beside *τελέσαιμι* Ι 157 and the like, which afterwards form the rule, *τετέλεσται* Σ 74, *ἐτελέσθη* δ 663, Aesch. Choeph. 1067, *ἀτέλεστος* Δ 26, *ἐπιτελεστέον* Isocr. xii. 37. From the stem *τελες* (nom. *τέλος*).

The same principle may be applied with a certain probability in explaining *ἀρέσκω* (*ἤρεσα*, *ἠρέσθην*), on the ground of the stem *ἀρες*, which comes out, even more clearly than in *τὸ ἄρος* (gain), in the comparative *ἀρείων* with a similar meaning, and also for the Homeric *κοτέομαι* (*κοτέσσατο* Ψ 383, *κοτεσσάμενος* Ε 177) on the ground of the forms *κοτήεις* and *κοτεινός* (Pind.) which on the analogy of *τελήεις* and *φαεινός* allow us to deduce a stem *κοτες*. The same may be said of *ποθέω* (*ποθέσαι* β 375, δ 748, Herod. ix. 22, though also *ποθήμεναι* μ 110, later *ποθήσω* and the like). In all the other verbs of this kind we can at most speak of a possibility.

Whether stems in θ have contributed towards the formation of such forms is very doubtful. We might on the analogy of *φθινύθω*, *μινύθω* presuppose a **τανύθω* in order to explain by the side of *τανύω* forms like *ἐτάνυσσε* Π 662, *τανύσσας* Ψ 25, *τετάνυστο* Κ 156, *τανυσθείς* Π 485, as we have previously explained *ἐπλήσθην* from *πλήθω*. In the case of *ἐμέσσαι* we might remember *ἐμέθω*, mentioned on p. 502, in the case
371 of *ἀλέσσαι*, *ἀλέσαι* grind, *ἀλήθω*. But we can nowhere get beyond conjecture here, and the applicability of another method of explanation to be mentioned immediately warns us to be cautious.

For the great majority of the forms coming under this head we cannot solve the problem by any of the means hitherto attempted: and we must look for its solution only in the phenomenon which I have pointed out already on pp. 234, 242, 251, viz. in the extensive interchange between the verbs which by the rejection of the *j* originally present before the thematic vowel show a vowel stem, and those in which a δ has developed before this *j*, which coalesces with it into ζ. On p. 235 we enumerated 18 instances of verbs in *αω* and *αζω* existing concurrently, ten of which were Homeric. But there were also many other indications of the fact that the analogies on both sides intruded into each other. On p. 242 we quoted as many verbs in *εω* with by-forms in *ιζω*. Traces of *νζω* beside *νω* were mentioned on p. 250. We

have further shown that a large part of the verbs in ιζω go back to an earlier termination εζω, so that the following sets are established :

*αϳω	*εϳω	*υϳω
αω	εω	υω
αζω	εζω (ιζω)	υζω

The hypothesis that at an earlier period the language fluctuated, even more frequently than we can precisely prove to have been the case, between the loss of the ϳ and its assibilation after it had been preceded by an inserted δ, is certainly not an unjustified one. Now later on the same principle of formation did not always hold good in the present stem as in the remaining tenses, hence γελάω but γελάσω (as if from *γελάζω), ἑλκύω but ἑλκυσθῆναι (as if from *ἑλκύζω). Pott Etym. Forsch. ii.[2] 970 ff. has already discussed a large number of the anomalous forms in question from the same point of view, and in the Elucidations p. 133 I have followed him.

Particular verbs are especially adapted to throw light upon this process. Thus we have ἄγαμαι, while forms like ἀγάσσατο P 71, ἀγάσσεσθαι δ 181, ἀγάσησθε Ξ 111, ἀγασθῆναι from Hesiod onwards, ἀγαστός common from Xenophon onwards, follow ἀγάζω, ἀγάζομαι, which 372
occurs in Pind. Nem. xi. 6 (ἀγαζόμενοι) and in Aeschylus (Suppl. 1062). The difference of meaning was discussed on p. 118. As in the case of this stem we have authority also for ἀγαίομαι with a vocalised ϳ, and ἀγάασθε, we have in this case the different phases of the primitive form unusually clearly before our eyes.—δαμάω=Lat. *domo* has been preserved in the older literature only with a future force, and hence it was discussed on p. 479. Homer uses for the present δάμνημι and δαμνάω. δάμασσε E 106, δαμάσσας Pind. Pyth. viii. 80, δάμασον I 496, ἐδαμάσθην θ 231, δαμασθέν Eur. Phoen. 563 belong to the rarer present δαμάζω, which crops up first in Hesiod (Theog. 865), then in Pindar (δαμαζομέναν Pyth. xi. 24) and Aeschylus (δαμάζει Choeph. 323).—To the present αἰνέω belong properly only forms like αἰνήσουσι (π 380), αἰνήσωσι Ψ 552, while ἤνεσα (from Aeschylus onwards), αἰνεθείς (from Herodotus onwards) suit rather αἰνίζομαι (N 374) or the presumable earlier form *αἰνέζομαι.—προκαλέσσατο (H 218) is hence only a more archaic aorist form to προκαλίζετο (Γ 19) than *προυκαλίσατο would be, not an irregular one. And doubtless the short vowel, which always held its ground in ἑκάλεσα is due to this.—The variable σ in the inflexion of σώζω finds its explanation, as Buttmann Ausf. Gr. ii.[2] 295 correctly taught, in the confusion of a verb σάω (from σαόω) with σώζω. In Homer we have no trace of the σ, and the ζ of the present appears only in ε 490 (σώζων), where however Didymus read σάων : and by the side of this ἐσάω Φ 238, σαώσει, σαώσειαν, σαωθήτω etc.; cp. Mangold Stud. vi. 199. In Aeschylus first (Sept. 820) we find σέσωσται, in Euripides (Herc. F. 1385) σωστέον, while ἐσώθην, σωτήρ never take a σ. The anomaly becomes more confused here, because the form with ι σῴζω, thoroughly discussed by Usener in Fleckeisen's Jahrb. 1865 p. 238 f., is established by the Heraclean Tables (κατεσῳξαμες Stud. iv. 428), by Attic inscriptions in part of a very early date (Wecklein Curae epigraphicae p. 45, Cauer Stud. viii. 416) and by grammarians (Herodian e . Lentz i. 444, 6). Of course σῴζω can only have come from σωίζω. But the statement that Didymus wrote no ι (Herodian ed. Lentz ii. 586)

and the fluctuation of the grammarians' theory between the derivation
373 from *σαόζω and that from σωΐζω are very noteworthy.[1] A form so isolated as σαόζω perhaps is not due to the invention of the grammarians. It might well attach itself to δεσπόζω and ἁρμόζω according to the view stated on p. 238. σαόζω as a derivative from σάος is related to σιάω just as δαμάζω is to δαμάω. The existence of a σαόζω, σώζω formed from σάος would naturally by no means exclude the later formation of a σωΐζω from σῶος. σαόζω would be to σωΐζω much as the Cyprian καλήζω (Herodian ii. 332) to κλητίζω. In this way we arrive at a system of equivalent forms, which is certainly somewhat complicated, viz.

1) σαόω, σώω } derived from σᾶος, whence ἐσώθην
2) σαόζω, σώζω } similarly derived from σάος, whence σέσωσται
3) σωΐζω, σῴζω } derived from σῶος, whence κατεσῴξαμες.

Some radical verbs too have apparently a moveable ζ, thus βλύζω (ἀποβλύζων I 491) with ἔβλυσα (Apollon. Rhod.) which belongs to it, and βλύω (ἀναβλύειν Hippocr.), κτίζω with ἔκτισσα, ἔκτισται etc. beside περικτίονες, κτίμενος, σχάζω Xen. Hellen. v. 4, 58, whence ἀποσχάσω (Crates Com. ii. 249), σχάσας Eur. Phoen. 960, and ἔσχων Ar. Nub. 409.

On p. 251 we saw that the source, from which so often the ζ sprang, the spirant *j* both after a simple *υ* and after the diphthongs *αυ, ευ, ου* had its place in the present. As a μεθυίω is actually on record, so we deduced previously a *λυίω. Now as soon as a δ developed before the *j*, *μεθύζω was produced, which is not itself on record, but we may venture to assert that it survives in μεθυσθῆναι (Herod. ii. 121). In this way we may perhaps explain θρανσθέντα (Soph. Antig. 476), κεκέλευστο (Herod.), ἐκελεύσθην (Soph. Thuc.), λευσθῆναι (Soph.). For the rts. *καυ*
374 and *κλαυ* we find a present formation in *ι* actually existing in καίω, κλαίω i.e. καϝίω, κλαϝίω, and so for the intensified stems πλευ, πνευ from πλυ, πνυ in the Homeric πλείω, πνείω (cp. pp. 156, 210). These are followed by καυστός (Eurip.), κλαυστός (Soph.). The use of the σ is especially extensive after diphthongs in particular. The form δυνάσθη which occurs as early as Homer (Ψ 465, ε 319) points to an obsolete *δυνάζομαι, which in its formation would be related to δύναμαι much as δακνάζομαι (Aesch. Pers. 571) to δάκνω. πεφασμένος perf. part. to φημί (Ξ 127) leads us to conjecture a present *φάζω as a by-form to φάω (p. 148)=Lat. *fāri*.

The dental presupposed in the verbs mentioned, as a predecessor of the σ, actually occurs in a few instances, as in ἐληλέδατ' η 86, discussed on p. 242, from which it is not too venturesome to deduce a stem ἐλαδ, which presupposes a present *ἐλάζω beside the actually extant ἐλάω (ἔλων Ω 696). This would justify ἤλασσα beside ἤλασα, ἠλάσσατο beside ἠλασάμην, ἐλάσσομαι etc.—κλείω Old Attic κλῄω has most probably come from the nominal stem κληϝι (=Lat. *clavi*) with the by-form κληϝιδ. The two stems interchange in nominal as well as in verbal forms. In

[1] The words recorded in Et. Magn. p. 741, 25, which according to Lentz are drawn from Herodian run thus: ἀλλ' ἡ παράδοσις ἔχει τὸ ι. τὸ δὲ σῴζω, ὅτε μὲν γίνεται ἀπὸ τοῦ σῶος σωΐζω ὡς λέπος λεπίζω καὶ κατὰ συναίρεσιν σῴζω, ἔχει τὸ ι. ἡνίκα δὲ ἀπὸ τοῦ σάος σαόζω καὶ κράσει σώζω, οὐκ ἔχει προσγεγραμμένον τὸ ι.

Homer we have the nominal forms κληῖδα E 146, κληῖσιν σ 294, κληῖδεσσιν μ 215, and corresponding to these κλήϊσσεν δὲ θύρας τ 30, κληῖσταὶ σανίδες β 344. In Herodotus iii. 58 we read ἀπεκληΐσθησαν; on the other hand the Attic writers use the contracted form, and that partly in the earlier form κλῆδας (Aesch. Eum. 827 etc.), κλῆσαι (Aesch. Pers. 723), ἐγκλῆσαι (Soph. Antig. 501), for which I may refer to Gerth Stud. i. 2, 218, κατεκλήσθην Thuc. i. 117, κλῆστός Thuc. ii. 17, partly in the later συνεκέκλειστο Andoc. i. 48. In the tragedians and Aristophanes according to Nauck, Dindorf and Wecklein (Curae epigr. 66) we should write η throughout. Besides the present stem the perfect middle also attaches itself to the form without δ, in Herodotus ii. 121 κεκληϊμένου, in Attic writers here and there κέκλημαι, κέκλειμαι, κέκλεισμαι. The Doric κλᾳξῶ, κατεκλάξατο (Theocr. vi. 32, xviii. 5) also deserve mention, inasmuch as this ξ too as the correlate of the present properly requires a ζ.

In this whole question we must not leave out of sight the fact that the usage was extremely fluctuating, and that on this account the authority of our texts cannot be regarded as very certain, and that evidently the 375
σ became more widespread in course of time. Buttmann noticed this in Ausf. Gr. i.[2] 424, where he says 'So that we see that this σ has made its way in by degrees, for which the formation of the words in ζω, θω, δω supplied the analogy.' He was only wrong—with Lobeck ('assumto sigma corroboravit' Paralipp. 320 sqq.)—in assuming the operation of a 'euphonic principle,' for we cannot possibly speak of this. Forms with a short vowel like δέδοται, ἐτέθην, λέλυται etc. always remained unaffected, while on the other hand ἐμνήσθην (ἐπιμνησθείς δ 189, πολυμνήστη, μνηστῆρες), ἐπλήσθη, ἐρραίσθη (Π 339) ὀρχηστήρ, παλαιστής, θρωσμός in spite of their long vowel show the σ even in Homer. For the variations of our authorities I content myself here with referring to the abundant material collected by Lobeck ad Ajacem v. 704, and supplemented by Wecklein Curae epigraphicae p. 61. Elmsley regarded εὔγνωτος as the only correct Attic form, but even in Homer (β 175, ν 191, 397) we find ἄγνωστος, which is known also to Pindar. Rigour is here by no means in place. We cannot form a more definite judgment as to the authority for many forms in the Attic writers, until the inscriptions of the best Attic period have been carefully examined with this in view.

We can see that it would be in vain to seek any special inducement for each particular form, from the fact that while the σ makes its way into forms to which it did not originally belong, on the other hand the same sound elsewhere lost its original place. We can hardly explain otherwise ἐργάτης (as early as Archilochus fr. 39 Be.[3] βοῦς ἐστὶν ἡμῖν ἐργάτης ἐν οἰκίῃ), with the derivatives ἐργάτις, ἐργατικός, ἐργατίνης, which in its formation reminds us of δεσπότης, τοξότης, οἰκέτης, φυλέτης, and further θαυματὰ ἔργα Hymn. in Merc. 80, 440, Hes. Scut. 165 (cp. Pind. Ol. i. 28), κέκευται· κέκευσται Hesych, γέγευμαι in spite of the rt. γυς. Evidently such forms point to an early obscuring of the instinct of the language. Hence we must be always very cautious here with regard to bold etymological combinations. The possibility of such presents itself often enough. Thus we might conjecture that under the aor. ἐκλάσθη lies a root κλας expanded from καλ (Lat. *cellere*); but it is just as conceivable that the present form *κλάϳω arising from metathesis was 376
expanded by a δ and produced a *κλάζω, which though afterwards

obsolete, was the source of the sigmatic forms. For γνωστός we might suppose a stem γνως expanded from γνω, but also a present *γνωϳω, which might be compared with O. H. G. *knâu*. The same alternative recurs in the case of μνάομαι, χράομαι. Thus elsewhere too different paths present themselves, between which it is hard to decide. But speaking generally, the whole phenomenon here in question does not belong to quite the earliest period of the language, so that the spread of an analogy, not very sharply defined, on the strength of a number of old precedents can hardly be denied. I doubt whether it will ever be easy to arrive at the proof of the principal causes for the whole phenomenon, which we have here endeavoured to complete.

CHAPTER XXII.

THE ITERATIVES.

The essential verbal forms, which are carried out to a large extent in the case of all Greek stems, have now been discussed by us. There remain only some formations which are, so to speak, more tentative than complete, and which are limited to particular portions of the language. Among these the iteratives deserve the first place, if only for their abundant developement in the period of the language concerning us, and the manifold forms they take. They are tolerably numerous in the language of Homer. I have noted about 130 altogether, in round numbers. But it is very noteworthy that only a small number of these forms occur frequently, e.g. *ἔφασκε*, *φιλέεσκε*, *εἴπεσκε*; by far the majority have the stamp of formations which were ventured once or twice, and which therefore the poet certainly had at his command, if he needed them, without their having attained the full franchise by the usage of the living speech. The number of the *ἅπαξ εἰρημένα* among them is 377
very large. With regard to the particular personal forms too a restriction appears. It is only the third person singular and plural which is at all common. On the other hand the first and second person plural are only represented each by a single example in Homer: *νικάσκομεν* λ 512, *ἐφάσκετε* χ 35, and so the 2 sing. of the middle *πελέσκεο* X 433. After Homer indeed about 90 new forms are essayed. But there are but few which we can get from the older poets. Hesiod, according to Förstemann de dial. Hesiodea p. 34, has only 10 such forms, Pindar according to Peter de dial. Pindari p. 58 only three. On the other hand the iterative is quite common in Herodotus. Bredow de dial. Herod. p. 285 ff. gives a list of 24 forms of the kind from different verbs. The tragedians have left us only 4 such (Gerth Stud. i. 2, 259), of which one already occurs in Homer. All clearly bear the mark of the intentional imitation of earlier poetry. In Aristophanes we find probably only *βινεσκόμην* Equ. 1242, and in the imitation of an oracle *ἐξαπάτασκον* Pax 1070. On the other hand the later Epic poets, especially Apollonius Rhodius and Quintus Smyrnaeus delight in employing and multiplying Homeric iteratives, and also Theocritus and Moschus have some new instances. The whole form was therefore living only among the Ionians, and hence it is not unknown to Hipponax, who is thoroughly popular in his style: fr. 37 Be.[3] *θύεσκε*. So far as we can judge, it owes its wider extension only to the influence of the Homeric Epos. It is very significant that Attic prose let this form altogether drop. The precise usage of the durative forms as distinguished from the aoristic made the iteratives in point of fact unnecessary, especially as auxiliary verbs like *εἰωθέναι*, *φιλεῖν*, and above all the use of *ἄν* with the indicative of the past tenses with the force of a frequently occurring

action (Grammar § 507 note 3) were at command, if it was needful to express the specific force of repetition. In Herodotus, as a kind of intermediate stage, an ἄν of this kind is sometimes added even to iterative forms.

The iteratives share the group σκ with the inchoatives discussed in Chap. X.; and we cannot fail to see that the force of the two is cognate.
378 The iterative action forms a kind of contrast to the regularly continuous, just as much as the inchoative. Every repeated action is on the other hand just as distinct from that which is entirely complete as that which is coming to completion, which realises itself in incipient attempts Still it must be admitted that starting from this common basis the usage of the past tenses cut loose from an indicative present diverged on a line of its own, and thus became an excellent means, especially for narrative statement, to distinguish with the greatest brevity frequently repeated action from the single act. The iterative past tenses, e.g. δόσκον are related to the present stems of the inchoative class, e.g. βόσκω much as the isolated past tenses in -θο-ν, which occupied us on p. 501 ff. e.g. ἔσχεθον are to present forms like πλήθω. It is occasionally difficult to decide whether a preterite form is to be regarded as an imperfect of the inchoative class or as an isolated iterative form. Thus on p. 192 we decided to take παρέβασκε Λ 104 as an imperfect, because βάσκε occurs as an imperative. On the other hand we shall be obliged to allow ἔφασκες Τ 297, φάσχ' ὃ 191 (Νέστωρ φάσχ' ὁ γέρων ὅτ' ἐπιμνησαίμεθα σεῖο) as iteratives. For φάσκω as a present occurs first in Attic writers (cp. p. 193). In this instance therefore in the course of the history of the language first the past tense established itself, and afterwards the present, though only with a greatly faded meaning. Again ἔσκον admits of considerable doubt. An iterative force does not come out clearly in any of the Homeric passages, and is more than once decidedly excluded, e.g. Η 153 γενέῃ δὲ νεώτατος ἔσκον ἁπάντων, Γ 180 δαὴρ αὖτ' ἐμὸς ἔσκε κυνώπιδος. Cp. Pind. Nem. v. 31, Aesch. Pers. 656. On the other hand in several of the passages in Herodotus referred to by Bredow p. 285, we must recognize the iterative force, e.g. vi. 133, vii. 119. Hence we shall perhaps do best to place the form with the others formed by the suffix -κο, of which we spoke on p. 411 ff., and to regard the iterative usage as a later developement which easily resulted from following the forms in -σκο-ν. The Old Latin *escit* (Neue Lat. Formenlehre ii.[2] 596) acts as a present with a future force formed from the same stem. The description of these forms as iteratives and the right apprehension of their usage is a matter of quite recent date. The ancient grammarians
379 seem to have taken all the forms of this kind as merely Ionic expansions of the current past tenses : τὰ διὰ τοῦ σκε παρηγμένα Ἰακῶς, as Herodian says (ed. Lentz ii. 792). Buttmann (Ausf. Gr. i.[2] 382 note) even believed that he was the first to notice the force of these forms, after his attention had been called to it by Grotefend. He did not fail to see however that the repetition of the action did not come out with the same sharpness in all the Homeric passages. This is still more true of the later poets, who use the forms more as an archaic garnish.

That the augment was not used with the Ionic past tenses in -σκον was taught even by the ancient grammarians. Cp. Et. M. p. 295, 14 : τὰ γὰρ τοιαῦτα ἀποβάλλουσι τὴν ἐν ἀρχῇ κλιτικὴν ἔκτασιν. This is true of the great majority. But the augment is often used in Homer with the

iterative of *φημί* : *ἔφασκες* (*ἀλλά μ' ἔφασκες* T 297), *ἔφασκε* (*ὃς ἔφασκε* *θ* 565, *ν* 173, *οὔποτ' ἔφασκε* *ρ* 114). Any one who chose to apply the critical knife here, to restore the uniformity of which many are so fond, would find many a passage not easy to deal with, e.g. *μ* 275 at the end of the verse *ἄμμιν ἔφασκον*, *ξ* 321 *κεῖνος γὰρ ἔφασκεν*. Other augmented iterative forms are *ἐμισγέσκοντο* *υ* 7, *ἀνεμορμύρεσκε* *μ* 238 (La Roche with the first hand of M. *ἀναμ.*), *παρεκέσκετ'* *ξ* 521, *ἠγίνεσκον* Aratus 111. In Callimachus Hymn. in Dian. 123 O. Schneider writes with the best M.SS. *πολλὰ τέλεσκον* not *πόλλ' ἐτέλεσκον*. For Herodotus Bredow denies altogether the use of the augment in these forms. Stein too writes e.g. Herod. i. 100, where some M.SS. have *εἰςεπέμπεσκον*, *ἐσπέμπεσκον*, iv. 130 *λάβεσκον*, not as it is in earlier editions, *ἐλάβεσκον*. And certainly the number of the non-augmented forms here so greatly preponderates that this critical proceeding is justified.

It is difficult to find any reason for the suppression of the exponent of the past character of the action in the iterative forms. Buttmann Ausf. Gr. i.[2] 382 says it is sufficient that the forms were Ionic, since the Ionians always inclined to omit the augment. But that does not suffice. For in Herodotus, as we saw on p. 92, the syllabic augment is not rejected in any other case. Buttmann is more correct in pointing to the length of the forms, itself already considerable. Something of the same kind we 380
saw to be the case in the pluperfect. A certain dread of burdening the beginning and the end of a form too much with formative elements can be detected elsewhere too. The speech-forming art also of the Greeks knows a *μηδὲν ἄγαν*.

In their origin the iteratives are extremely various. We can distinguish four principal kinds :

A) Iteratives from present Stems.

These are by far the most numerous. It will suffice to quote some characteristic instances from each kind of present stems : thus

1) from those formed primitively

on the one hand *φάσχ'* *δ* 191, *κέσκετ'* (for **κείσκετο*) *φ* 41, *ῥύσκευ* Ω 730, belonging to *εἰρύαται* p. 122, on the other *ἵστασχ'* *τ* 574, *ἀνίεσκε* Hes. Theog. 157, *τίθεσκε* Hes. fr. 96 Göttl., *ῥήγνυσκε* H 141, *ζωννύσκετο* E 857, *δάμνασκε* Hymn. in Ven. 251.

2) from thematic stems without any further strengthening

ἔχεσκες E 472, *ἔδεσκε* X 501, *θέλγεσκε* *γ* 264, *ἄγεσκον* Herod. i. 148, *πέμπεσκε* Herod. vii. 106, *πελέσκεο* X 433 ;

3) from verbs which lengthen the vowel

φεύγεσκεν P 461, *λήθεσκε* Ω 13 ;

4) from verbs of the *T*-class

κλέπτεσκε ἄν Herod. ii. 174, *ἀστράπτεσκε* Moschus ii. 88 (Hermann, Meineke) ;

5) from the nasal class

πίνεσκε Π 226, *βλαστάνεσκε* Soph. fr. 491;

6) from the inchoative class

βοσκέσκοντο μ 355, *μισγέσκετο* σ 325;

7) from the *I*-class

κλαίεσκε Θ 364, *κτείνεσκε* Ω 393, *ποιμαίνεσκε* ι 188, *ἀποπλύνεσκε* ζ 95, *σπείρεσκον* Herod. iv. 42, *ἀπαγγέλλεσκε* P 409, *βαλλέσκετο* (Stein: *βαλέσκετο*) Herod. ix. 74, *πρήσσεσκον* θ 259, *λισσέσκετο* I 451, *ῥυστάζεσκεν* Ω 755, *ἐρίζεσκον* θ 225, *ῥέζεσκον* χ 209;

8) from formations with *θ*

βαρύθεσκε Apoll. Rhod. i. 43, *μινύθεσκον* ξ 17, *φθινύθεσκε* Α 491, *τελέθεσκε* Hymn. in Cerer. 241;

9) from a stem expanded by *κ*

the isolated *ὀλέκεσκεν* Τ 135:

10) from denominative verbs with vowel stems.

381 No difficulty is presented by forms like *δινεύεσκ'* Ω 12, *ἀριστεύεσκε* Z 460, *ταμιεύεσκε* Soph. Antig. 950. But from the stems of the contracted verbs the iteratives are formed in three ways, either

a) without any important alteration

νεικείεσκε Β 221, *βουκολέεσκες* Φ 448, *καλέεσκε* Z 402, *ἀπαιρέεσκον*, Herod. i. 186, *ποιέεσκε* Herod. iv. 78, *φιλέεσκε* Z 15, *ὑπνώεσκον* Quint. Smyrn. Η 503;

b) with assimilation

γοάασκε θ 92, *περάασκε* ε 480, *ἰσχανάασκον* Ο 723, *πεδάασκον* ψ 353, *ἀμφαφάασκε* Moschus ii. 97, *μειδιάασκε* Quint. Smyrn. Θ 117;

c) with loss of one of the vowels

ὤθεσκε λ 596, *καλέσκετο* Ο 338, *πωλέσκετο* Ε 788, *μυθέσκοντο* Σ 289, *οἴχνεσκε* Ε 790, *κράτεσκε* Pind. Nem. iii. 52, *βινεσκόμην* Ar. Equ. 1242.—*εἴασκον* Ε 802, *μνάσκετ'* υ 290, *τρωπάσκετο* Λ 568, *ἐξαπάτασκον* Ar. Pax 1070, *σύλασκε* Hes. Scut. 480. The ancient grammarians expressly teach that the vowel before *σκ* is always short (Herodian ii. p. 792). This excludes e.g. in the passage cited above from Hesiod's Theogony (v. 157) the reading of the M.SS. *ἀνίησκε*.

This third method was followed also by some forms at first sight surprising, viz. *ῥίπτασκον* Ο 23, *ῥίπτασκε* Ψ 827, *θ* 374, λ 592, *διαρρίπτασκεν* τ 575 *κρύπτασκε* Θ 272 (*κρύπτεσκε* Hymn. Cer. 239), which Kühner (i. 550) disposes of by saying that here *ασκον* took the place of *εσκον*. But we can hardly be contented with that. If I am not mistaken we have a fresh instance here of the intermixture of verbs in *αω* and *αζω*

noticed more than once, and to which reference was made on p. 235. This is seen most clearly in *ἰσάσκετο* Ω 607, which is formed like *τρωπάσκετο*. The only present known is *ἰσάζω*. But the iterative has come from **ἰσάω*. I. Bekker thought this form so strange, that on the strength of the reading of the papyrus '*ἔϊσάσκετο*' he adopted *εἰσάσκετο*, but it is certainly better to say of Niobe

οὔνεκ' ἄρα Λητοῖ ἰσάσκετο καλλιπαρῄῳ

and further *εἰσάσκετο* in the sense of 'compared herself' would be quite unique. Now as *ἰσάσκετο* is to *ἰσάζω*, so is *ῥίπτασκον* to *ῥιπτάζω*, the 382
intensive of *ῥίπτω*. At Ξ 257 the god of sleep says of the angry Zeus *ῥιπτάζων κατὰ δῶμα θεούς, ἐμὲ δ' ἔξοχα πάντων ζήτει*, and at O 23 the same Zeus boasts

ὃν δὲ λάβοιμι
ῥίπτασκον τεταγὼν ἀπὸ βηλοῦ.

For *κρύπτασκε* the corresponding *κρυπτάζω* occurs first in Diodorus and ecclesiastical writers. Still it would not be too bold, considering the complete analogy of the two forms *ῥίπτασκον* and *κρύπτασκον*, to conjecture the same origin for the latter also. How well the iterative form adapts itself to frequentatives may be seen from *ῥυστάζεσκεν* (Ω 755) the regular formation from *ῥυστάζω*, which according to our view stands in the like relation to *ῥίπτασκον* as *σύλασκε* to *γοάασκε*. It is true that two rare forms with a strange *α* still remain, *ῥοίζασχ'* Hes. Theog. 835, which however recent editors replace by *ῥοίζεσχ'* for which there is good authority, and *πάντοθ' ἀνασσείασκε* Hymn. in Apoll. Pyth. 225, where it is very easy to read, following most M.SS. *ἀνασείσασκε*, *ἀνασσείσασκε* (only M. *ἀνασσείασκε*) whereby we get a regular iterative from the sigmatic aorist.

B) Iteratives from Primitive and Thematic Aorists.

The need to render possible the expression of repetition not only of the continuous action denoted by the present stem, but also of the momentary action, evidently led to the extension of this formation more widely beyond its original sphere. Thus arose the various aorist iteratives, which we have now to point out.

There are but few primitive formations of the kind: *δόσκον* I 331, *στάσκεν* Γ 217, *δύσκε* Θ 271, *οὔτασκε* O 745 belonging to *οὖτα* (cp. p. 134).

Thematic aorist iteratives are:
προβάλεσκε ε 331, *γενέσκετο* λ 208, *εἶπεσκε* B 271 etc., *ἔλεσκον* ξ 220, *μεθέλεσκε* θ 376, *ἴδεσκε* Γ 217, *ἐξίδεσκε* ψ 94, *ἀπολέσκετο*[1] λ 586, *φύγεσκε* 383
ρ 316, *καταλίπεσκε*, *λάβεσκε* Herod. iv. 78, *ἐξελάθεσκε* Or. Sibyll. i. 44.

C) Iteratives from Sigmatic Aorists.

ἀγνώσασκε, as is now read after Apollonius in the Lexicon p. 8, 18 in ψ 25 instead of the hardly explicable *ἀγνώσσασκε* or *ἀγνώσσεσκε* of

[1] The active *ἀπ-όλεσκεν*, which Bekker has adopted Θ 270, is only supported by the Harleian M.S., hence La Roche is doubtless right in reading with the best M.SS. *ἀπ-όλεσσεν*.

the M.SS., contracted from *ἀγνοήσασκε*, like *ὀγδώκοντα* B 568, 652 from *ὀγδοήκοντα*, *κατ-αζήνασκε* λ 587, *ἀΐξασκε* Ψ 369, (*ἐπ-* P 462), *αὐδήσασκε* E 786, *δασάσκετο* I 333, *δησάσκετο* Ω 15, *εἴξασκε* ε 332, *ἐλάσασκε* B 199, *ἐρητύσασκε* B 189, *ἐξερύσασκε* K 490, *θρέξασκον* Σ 599, *ἀποκινήσασκε* Λ 636, *μνησάσκετο* Λ 566, *ὁμοκλήσασκε* B 199, *ὄρσασκε* P 423, *οὐτήσασκε* X 375, *σπείσασκε* θ 89, *στρέψασκον* Σ 546 (*ἀπο-* X 197), *ὤσασκε* λ 599. I do not find anything of the kind cited from post-Homeric literature with the exception of *ἀλδήσασκε* Orph. Lith. 364. It is very remarkable that the New Ionic prose, which, as we saw, elsewhere made such abundant use of the iteratives, rejects these somewhat awkward formations.

D) Iterative from the Passive Stem.

Here we have only to mention the one form *φάνεσκε*: Λ 64, λ 587, *μ* 241, 242, Hes. fr. 44, 3, which has evidently come from the passive stem *φανη* with the same shortening of the final vowel, as occurs in *ἔφανεν*, *φανέντος*, *φανείην*, and which here finds its complete explanation in the general rule that only short vowels are admitted before the *σκ* of the iteratives. We may also compare *κέσκετο* cited above. The notion of assuming an *ἔφανον* for *φάνεσκε* is altogether to be rejected. How little authority there is for such an aorist is shown by the collections of Veitch p. 588.

The whole category of the iteratives, which so to speak unfolds itself before our eyes out of a not inconsiderably different formation with essentially the same formative elements, and afterwards disappears again, is an extremely significant phenomenon for the processes in the history of language, instructive with respect to the fact which we have so often assumed, and which we denoted by the name 'branching off.' If it was
384 incontestibly possible at a tolerably late date for an offshoot of the inchoative class to attain to individual life, and extensively propagated by a spreading analogy to become an independent species, this fact gives additional support to the hypotheses which we ventured to advance for an immeasurably earlier period in respect of other formations, more deeply rooted in the life of the language, e.g. as to the origin of the conjunctive and the optative.

CHAPTER XXIII.

DESIDERATIVES, INTENSIVES AND FREQUENTATIVES.

We have only a small gleaning of forms left. These are those which are proportionally rarely employed, but which still cannot be passed over as parts of the great whole, because they also belonged to the system of the Greek language. Compared with the main pile of the edifice they form, if we may say so, small side-buildings, like the pleasure-houses or pavilions of a palace, which have been created for special subordinate needs, and might well be dispensed with altogether, without anything essential being felt to be wanting, but which hold their modest place, and bear witness to the inventive power of the architect.

I. DESIDERATIVES.

While the iteratives, as we saw, were treated by the ancient grammarians without any regard to their meaning simply as past tenses with an Ionic expansion, the desideratives used in good Attic could not be passed over by them without violating their principle, even as a matter of usage. The technical name for these forms seems to have been *ἐφετικά*, as Lobeck ad Soph. Aj. v. 325 saw, writing *ἐφετικά* in the words of the scholiast *καλοῦνται δὲ ἐφεκτικά*, and in the same way in Theodosius Grammat. p. 67, 18 Göttling writes (—*οἷον ὄψω ὀψείω, βρώσω βρωσείω, ἄτινα καὶ ἐφετικὰ λέγονται*). Elsewhere e.g. in the scholium on Ξ 37 we are told that *ἐπιθυμητικῶς ἔχειν* is the force of these forms, or an 385
adverb in *-τικῶς* formed from the same stem is employed to reproduce the sense; thus in the Lexicon of Apollonius p. 125, 32 *ὀψείοντες, ὀπτικῶς ἔχοντες· ὁ δὲ τύπος τῆς λέξεως Ἀττικός· κλαυσείοντες γὰρ λέγουσιν ἀντὶ τοῦ κλαυστικῶς ἔχοντες*. The old technical writers assumed two types of this most familiar and common kind of desideratives, viz. those in *ειω* (*ἀπὸ ἐνεστώτων*) and those in *σειω* (*ἀπὸ μελλόντων*). But as for the first type only the Homeric *κείω* and some few forms like *θαλπείω, τελείω, ῥιγείω, ὀκνείω* are quoted, the desiderative force of which is open to great doubt, and in some instances decidedly to be rejected, Lobeck (on Buttmann's Ausf. Gr. ii.[2] 389) has rightly banished altogether this first type, pointing out at the same time that even some of the ancient grammarians e.g. in the Et. M. 750, 50 recognized only the second type. The desideratives proper occur, as these writers noticed, only in the present, so that the form *ὤψεον* (for *ὤψειον*) quoted from Sophron '*σεσημείωται*' ['is specially noted']: on the other hand an imperfect may be formed from the verbs in *-ειω*.

Of the desideratives in *σειω* I have succeeded in discovering the following 20 instances.

ἀκουσείων Soph. fr. 820 according to Bekker Anecd. p. 369, 13.

ἀναγνωσείω Steph. Thes. 'Gl.'
ἀπαλλαξείοντες Thuc. i. 95.
συμβασείοντα Thuc. viii. 56 (probably more correctly *συμβησείοντα*).
βρωσείοντες Callim. fr. 345.
γαμησείω Alciphron i. 13, iii. 37.
γελασείοντα Plato Phaed. p. 64.
γραψείω Steph. Thes. 'Gl.'
δειπνησείω do.
δρασείων Soph. Aj. 326, *δρασείετον* Eur. Phoen. 1208, *δρασείεις* Ar. Pax 62.
δωσείειν Hesych. (M.S. *δοσείειν*), *παραδωσείοντα* Thuc. iv. 28.
ἐλασείοντι Lucian Charon c. 9.
ἐργασείων Soph. Trach. 1232, *ἐργασείεις* Soph. Phil. 1001.
κλαυσείοντες Apollon. Lex. 125, 23.
ναυμαχησείοντας Thuc. viii. 79.
386 *ὀψείοντες* Ξ 37.
πολεμησείοντες Thuc. i. 33.
τυραννησείοντα Diog. Laert. i. 2, 18.
φευξείω Eur. Herc. F. 628.
χεσείω Ar. Nub. 296, *χεσείῃ* Equ. 888.

The ancients, as we saw, derived these forms all from the future, a derivation to which in this case the meaning lends a certain probability, inasmuch as the wish is always directed to the future. And in Greek in particular the future does not reject the final usage, which is closely connected with the desiderative force. Still I do not see how we could get, in the face of the origin of the future examined on p. 466 ff., either from the earlier form *-σιω*, or from the abbreviated *-σω*, to *-σειω*. The desiderative shares the sibilant, which is essential for its form, not only with the Indo-Germanic future, but also with the Indian desiderative, which ends in *-sā-mi*. But we saw on p. 444, that most probably it is not this termination, but rather the reduplication, which we can see in the stem of the verb e.g. in *pi-pā-sa-ti* which properly carries the desiderative force. Hence if the Greek desiderative is at all akin to the Indian, it must have lost the reduplication, just as has been the case in a number of Sanskrit formations of the kind. But no one will readily maintain such a view in face of the entire absence of the slightest trace of such an expansion of the stem. And after all that would still leave the *ει* quite unexplained. Bopp has taken a different starting point for the analysis of the desiderative form, comparing a form like *δωσείω* with a **dāsjā-jē* (middle) which he deduces on the analogy of other formations, and which, supported by the Skt. *vṛhā-jē* I become great, which he traces back to **vṛ-hant-jē*, he derives from **dāsjat-jē*, that is from the stem of the future participle. According to this *δωσείω* would be for *δωσοντ-jω*. But all phonetic laws go against such an assumption, which Bopp was doubtless misled into making only by comparing the Latin desideratives in *-turio*, e.g. *nupturio*, *esurio*. But even in the case of these the derivation from the participle in *-tūru-s* is by no means certain.
387 For the difference of quantity (*nuptŭrio*, but *nuptūra*) [Roby § 976], which 'presents no difficulty' to Bopp, is a grievous hindrance. Now-a-days Bopp's view will hardly be defended by any one. Savelsberg Ztschr. xvi. 362 ff. brings the Latin forms *arcessere* (beside *accersere*[1]), *capessere*,

[1] [Cp. Journal of Philology vi. 278 ff.]

lacessere into connexion with the Greek desideratives, which certainly come near in meaning. But even if we chose to start with the stems in *ī* (e.g. *capessī-vi*) which occur elsewhere than in the present, we should still be far from getting an identity of stems. Hence no formation really corresponding to the desideratives has hitherto been discovered outside of Greek. It therefore remains probable that we have to do with specifically Greek recent formations, and we can only ask after what patterns they may have been produced. Derived verbs in *ειω* are to be found, as we saw on p. 240, almost exclusively in the language of Homer: *νεικείω*, *τελείω* etc. The desideratives in *-σειω* might therefore have been formed upon these at an early time, when such forms were in still more frequent use. Another circumstance is in favour of this. The diphthong *ει* is sometimes exposed to the same weakening into *ε* as in those presents. We have the isolated *ὤψεον* preserved to us from Sophron. The Syracusan *ὀψέω* belonging to it, which we may assume, is related to *ὀψειω* just as *τελέω* is to *τελείω*. The desideratives in *-σειω* are therefore, as far as their termination goes, verbs in *-εω* in their earlier form. It is more difficult to explain the preceding *σ*. We can hardly look for anything else in it but the remains of a stem-forming suffix. Now *σ* is indeed, apart from the widespread stem-forming suffix *-as*=Gr. *ες*, *ος*, which can hardly come into consideration here, a rare sound in nominal stem-formation. But there are a small number of stems with the suffix *-σο*, among which adjectives like *φριξό-ς*, *κομψό-ς*, *τιθα-σό-ς*, *πυρ-σό-ς* are found. Perhaps we may add also proper names like *Δάμα-σο-ς*, *Ἔλα-σο-ς*, *Ἔρα-σο-ς*, *Σῶ-σο-ς*. Now possibly *ἐλασείω* is to *Ἔλασος* just as *κοιρανέω* to *κοίρανος* or *ἀδικέω* to *ἄδικος*. The desiderative force might have been produced by their likeness to the futures, which sound somewhat similarly.

A second formation of essentially the same function, consisting of the 388
verbs in *-αω* and *-ιαω*, is seen at once to be of denominative origin. Perhaps the two forms, which have been very thoroughly discussed by Lobeck on Buttmann ii.[2] 389, are better kept apart. The rarer verbs in *-αω* without a preceding *ι* evidently come from abstract substantives, e.g. from feminine abstract substantives in *α*, *τομά-ω* (Soph. Aj. 582 *πρὸς τομῶντι πήματι*), *μαχᾶν ἀντὶ τοῦ μάχης δεῖσθαι* Hesych., *φονᾶν* (*φονᾷ νόος ἤδη* Soph. Phil. 1209), from masculines in *ο*, *θαναπᾶν* (Plato Phaed. p. 64), *τοκῶσα* (Cratin. Comici ii. p. 208)=*parturiens*, *λοπᾶν* to incline to peel (of trees). Lobeck is certainly right in explaining the verbs of sickness [e.g. *βραγχᾶν*, *λιθᾶν*, *ποδαγρᾶν*, *ὑδερᾶν*: cp. Lobeck on Phryn. p. 80] as identical with those cited, appealing to the German termination *-sucht* in *Gelbsucht* [jaundice] beside *Habsucht* [greediness]. *ψωρᾶν* (Plato Gorg. 494) is related to *ψώρα* as *τομᾶν* to *τομή*.—The forms in *-ιαω* have certainly come originally from nominal stems which contained the *ι*. Here Homer gives us an example: M 265 *ἀμφοτέρω δ' Αἴαντε κελευτιόωντ' ἐπὶ πύργων πάντοσε φοιτήτην*, where the meaning is rather imitative than desiderative, 'playing the leader.' But in such formations the more delicate shades of meaning between the endeavour after a thing, the tendency or the inclination to a thing, and action in imitation of a man everywhere cross each other. Now as we find nouns in *-ια-ς*, discussed by Lobeck Proleg. 487 ff., often formed with this sense, e.g. *Τειρεσ-ία-ς*, *Λοξ-ία-ς*, *Ξανθ-ία-ς*, *κυματ-ία-ς*, I can well believe that *κελευτιάω* properly, or, as Pott is wont to say, 'in idea' presupposes a

*κελευτ-ία-ς as a paragoge of κελευ-τή-ς, just as much as οὐρητιάσῃς in Ar. Vesp. 807 presupposes *οὐρητίας and *οὐρητής, ἀκουστιᾶν (ἀκουστικῶς ἔχειν Hesych.) *ἀκουστίας and ἀκουστής, ὠνητιᾶν (Suid.) *ὠνητίας, ὠνητής. On the same principle γαυριᾶν presupposes *γαυρίας, μαλακιᾶν *μαλακίας. It is certainly hard to decide whether abstract feminines may not also have contributed, as may be probable in the case of κλαυσιᾶν (Arist. Plut. 1099), ὀψιᾶν (Hesych.). It is certain that in the course of the history of the Greek language the ι became constantly more firmly established, and -ιαω became a favourite termination of verbs of the kind, so that by the side of ἱκτερᾶν λιθᾶν etc. ἱκτεριᾶν, λιθιᾶν etc. established themselves. For these I may refer to Lobeck ad Phryn. p. 79 ff.

389 The unmistakeably denominative character of the second formation evidently favours our conjecture that the case was the same with the first. As a rule these later offshoots of the verb do not seem to be formed directly from the stems of the verbs in question, but to presuppose usually the preliminary stage of a nominal stem, as we shall have to notice again in the case of the frequentatives.

II. INTENSIVES.

A definitely formed intensive formation, characterised by particular terminations, does not exist in Greek, and therefore there is no Greek name for the intensives. 'I find in the ancient grammarians no mention of epitatic or paratatic verbs,' says Lobeck on Buttmann ii.[2] 392. But there are remains of a primitive Indo-Germanic intensive form, to which attention has repeatedly been called. The sign of the intensity of the action is reduplication, which in this case is readily united with vowel-intensification in the syllable of reduplication. In Sanskrit, as may be seen from Delbrück's statement in his Old-Indian Verb p. 130 ff., the modes of treatment of the stem are diverse. A part of these forms have been mentioned already under the head of the perfect, e.g. p. 376 ff. One of the various methods of formation is that the reduplicated stem unites with the suffix *-ja* to form the present stem. According to Delbrück p. 131 this method is still 'rare' in the Veda, and becomes 'more common later on.' Its type is represented by *vē-viṷ-já-tē* to let fly from the rt. *viṷ*, *rē-rih-ja-tē* from the rt. *rih* (*lih*) lick. But still the formation must be very ancient: otherwise Greek and Sanskrit could not agree in it. Such forms, so far as they are preserved in Greek, belong to the I-class of the present formation, and have accordingly been cited above, viz. p. 212 f. seven presents in -λλω, αἰ-όλλω etc. p. 215 f. five in -ρω, γαρ-γαίρω etc. p. 217, eight in -νω, ἀν-αίνομαι etc. p. 221, three in -σσω, δει-δίσσομαι etc., p. 226 f. sixteen in -ζω ἀρράζω etc. The whole subject has recently been treated so thoroughly by Fritzsche in his

390 paper 'de reduplicatione Graeca' Stud. vi. esp. p. 282 ff. that I need not follow it up further here, especially as I frankly confess that I cannot offer anything, which quite satisfies me, as to two phonetic difficulties which present themselves in these forms, viz. as to the ι, which appears e.g. in παι-πάλλω, and as to the nasal which appears in δεν-δίλλω. The very varied treatment which the palatal spirant *j* underwent in Greek has led the instinct of the language to part off these verbs, though fundamentally quite homogeneous. Hence we naturally could not talk of a definite and certain usage.

Intensives, which belong to any other class of presents, are extremely rare, perhaps do not exist at all, for even κω-κύ-ω beside Skt. *ku* howl (cp. Fritzsche p. 301) and νη-νέ-ω beside νέω might easily have lost a *j* before the thematic vowel.

III. FREQUENTATIVES.

I have repeatedly, especially on pp. 236 f. and 243, called attention to the verbs in -τάω with the by-form -τάζω, and to those in -τέω with the by-form -τίζω, which have the plainest connexions with the Latin frequentatives in -*tāre* or -*itāre*. εὐχετάομαι, ὀνοτάζω, ῥυστάζω, αἰτέω, αἰτίζω, ὠστίζω may serve as examples. ῥιπτέω and *jactare* quite coincide in their meaning, *fateri* and φατίζειν do not essentially differ. The denominative origin of formations of this kind has been discussed already. Their force is doubtless most correctly denoted by the name 'frequentatives.' But they often deviate into the category of the intensives.

What Buttmann and Lobeck (Ausf. Gr. ii.[2] p. 392 f.) have further collected under the head of frequentatives consists of mere details. For instance, in γεμίζειν beside γέμειν, ἑρπύζειν beside ἕρπειν, σεβίζω beside σέβομαι, it is merely a question of a further expansion through the medium of a nominal stem.

We may also pass over here what is collected, as an appendix to this, with regard to diminutives. For the category of diminutives is developed only in nominal stems. If there are apparently some few diminutive 391
verbs, e.g. ἐξαπατύλλειν (Arist. Ach. 657), ἠβυλλιᾶν (Ran. 515), these are rather ventures of the Comic poets than verbs actually in use, and even these have evidently arisen on the analogy of denominative verbs.

The inchoatives, which exist only in the present, were discussed in Chap. X.

CHAPTER XXIV.

ANOMALIES.

We have but little information as to the arguments by which Crates of Mallus endeavoured to maintain the principle of anomaly, which he defended against Aristarchus. Still we cannot but suppose that the verb must have supplied him with especially abundant materials. In modern grammar the verb has always remained the special domain of anomaly. Buttmann in his Complete Grammar disposes of the regular verb in the first volume in 240 pages, the irregular in the second in 332 pages. When we read what he says at the commencement of the second volume as to the irregularities of the verb, we become aware how in spite of the extremely valuable investigations, of which I have everywhere thankfully availed myself, in the 'Survey of the Anomaly of the Verb' (ii. 1–89), the number of irregularities remains quite overpowering. When he has reached the end of this survey he himself prefixes to the list of verbs, which seemed to him indispensable as a last refuge, the remark: 'Here, with the exception of the verbs which are derived from other words according to a definite analogy, like the great majority of those in *αζω*, *ιζω* etc. [at i. p. 472 he adds those in *αω*, *εω*, *οω*, *αινω*, *υνω*, *ευω*], we must properly place all the rest.' But even those excepted are not wholly lacking among the irregular verbs, for e.g. in the case of many verbs in *αω* and *εω* fluctuations of quantity, facts as to the moveable *σ* discussed
392 by us in Chap. XXI., and as to the occurrence of the particular tenses, even of those called by K. W. Krüger § 40 'regular,' have to be noted. Hence a considerable part even of the verbs which are supposed to undergo the usual or regular change, are discussed in every alphabetical list of verbs, especially in the most complete of all, Veitch's 'Greek Verbs, Irregular and Defective.' Hence it is really very hard to find an answer to the question what verbs are regular. Perhaps from this way of looking at the question it is hardly possible to give any other than this, 'those verbs only are regular, which do not appear in the list of the irregular verbs.' And I do not doubt that many will content themselves with this answer, and that there will even not be wanting some who may regard such subtle distinctions as not belonging at all to the sphere of 'scholarship.' As we now stand upon a different level, it is worth while at the close of our whole consideration of the structure of the Greek verb, to enter upon the conception of anomaly and upon the reasons for the extremely great variety of the Greek verb which remains in spite of all our endeavours to obtain guiding and simplifying points of view.

If we take the notion 'anomalous' simply in its physical sense as 'uneven,' certainly the Greek verbs are in the highest degree *ἀνώμαλα* as compared one with another. There are not many verbs which have

their presents formed identically, and at the same time form their remaining tenses in exactly the same way, and on the other hand, there are not many roots with just the same phonetic character, which have the same present form. Each verb is, so to speak, an individual, or rather a group of forms with a shape of its own, held together only by their common meaning. As Germany and Italy were formerly 'geographical expressions,' so every single Greek verb is, if we may say so, only a lexical expression. But certainly according to the scientific use of the word the *ἀνώμαλα* are not so much opposed to the *ὁμαλά* as to the *ἀνάλογα*, and *ἀνωμαλία* is opposed to *ἀναλογία*. Anomaly in this sense is evidently a much more limited phenomenon. Formations which range themselves under no *λόγος*, no series of phenomena united by a common bond, are among the greatest rarities. It has necessarily been always 393
our endeavour to point out such series. But the analogue appears not so much in the whole as in the single groups. It is only in these that we can point out the special formative impulses, as they sprang up and established themselves, for the most part in early periods of the language. These too again display themselves in great variety. What a number of formative impulses, supplementing and sometimes even opposing each other, may be detected e.g. in the Greek perfect! The particular groups, when they took shape, were by no means always what they afterwards appeared. The distinctions between a present and an aorist form, afterwards of such importance, often present themselves in earlier periods of language, which contain the key to the later periods, as fluid. It was only when the groups got by degrees pressed together into a whole, that many of them acquired the application which forms the rule in the best period of literature. For instance, whether in the verbal system which became the normal one, the aorist should be formed primitively, e.g. *ἔφῡν*, or thematically, e.g. *ἔβαλον*, or sigmatically, e.g. *ἔπραξα*, depended on the question whether an archaic stem-form had continued to survive into the period, when all this was settled, or not. Hence the unity of each verbal system is one which has come about historically, and can be understood only as a historical event, not by means of deduction, or from phonetic analogies alone. The latter have undoubtedly contributed to the result, but they are not properly the chief thing. The tendency to produce uniformity according to theoretical symmetry has certainly proved itself powerful in the Greek verb, but still to a much less extent than in the verbal formation of other cognate languages. It is only the system of the forms common to all the groups, viz. the personal endings, the augment, the formation of the moods and of verbal nouns, though the last evidently only by degrees, which took a definite stamp in early times. Within this framework the greatest variety prevails, and we must admire the Greeks for having been able to fathom this abundance of variously connected creations, and crossing analogies with an unerring instinct, and to employ them with due regard to their place in the system.

The anomalies within the different groups have been considered in 394
the discussion of these in detail. A far-reaching deviation from the rule, which was noticeable in three groups, was the subject of our consideration in Chap. XXI. It remains for us now to survey the chief causes of the extraordinary variety of the structure of the Greek verb as a whole, and then to examine the very few instances, in which we must recognize real anomalies.

In addition, then, to what has been said already as to the general character of the Greek verbal system, I think we may note the seven following points, as those which contributed to a large extent to its chequered appearance.

1) The crossing of active and middle forms.

Here belong not merely the so-called deponents, in the majority of which a reflexive force, though with different shades of meaning, will be found to be underlying, but also especially the preference of the future for the middle form, which has been referred to repeatedly, and conversely the use of the active personal endings to denote the passive, which elsewhere is wont to make use of the middle. Evidently the distinction of meaning in the Indo-Germanic verb between the active and the middle was originally a very delicate and elastic one.

2) The crossing of the primitive and the thematic formations.

The more convenient inflexion by means of definite vowels appended to the stem and moveable according to a fixed rule, makes its way wholesale into the remains of the primitive verbs, so that no one of them has remained wholly unaffected. This is of itself enough to make all verbs in *μι* properly speaking irregular. But conversely in forms like *ἔβην, φῦναι, σχές*, in perfect forms like *τεθνάναι*, in optatives like *ποιοίην* and throughout in the two passive aorists the primitive inflexion makes its way into the organism of the thematic.

3) The variety of the present formation.

This is really the germ and the central-point of the whole of the Indo-Germanic wealth in verbal forms. The present stem is formed in
395 many ways, every other tense as a rule only in one way. This is the fundamental law of the Greek verb. It is precisely at this point that we meet with a greatly excessive wealth of forms above the requirements of the meaning. A glance at the facts pointed out on p. 135 ff. is enough to show what diversified present forms came from similar stems. In the variety of the present stem a very ancient delicate distinction between the different kinds of continuous action has, as it were, become petrified. For in the extant language there are few traces of these distinctions. Some isolated indications of the kind were pointed out on p. 187. It did not however escape our notice how here and there phonetic analogies limit the variety at least to a certain degree. Under the first class we saw on p. 145 f. that certain short thematic stems do not occur as present stems, under the third (p. 161) that the *T*-class is formed almost exclusively from stems ending in a labial. Similar limitations based upon phonetic analogies were noticeable elsewhere, too, e.g. in the case of the verbs in *-νυ-μι* (cp. p. 109).

4) The extension of the present-stem.

Again a very productive source of irregularities not merely for Greek, but for all the cognate languages. As the present stem with its various

expansions came to bear a less sharply distinguished force, it was very natural that it should occasionally extend beyond its original province. Sometimes the present stem makes its way altogether into the province of the other groups, e.g. in *τάνυσσα, τετάνυσται, τάνυσθεν* (p. 113), and in the Syracusan perfect *πέποσχα* (p. 400), with slight phonetic modification, sometimes the diphthong of the present extends into other groups, e.g. almost regularly in future, sigmatic aorist and perfect forms like *λείψω, ἔτευξα, λέλειμμαι*, sometimes the nasal oversteps the limits proper to it, e.g. in *κέκλαγγα*. Cp. pp. 401, 460. Though it is as a rule an advantage of Greek to carry out so purely the original distinction of the present stem from the verbal stem, yet we cannot be astonished to find that the convenience of employing elsewhere too the stem which had become habitual in a long series of the most indispensable forms, was frequently too much for the beautiful old flexibility.

5) The intermixture of shorter stems with those expanded by a vowel. 396

Here belong the phenomena of the *e*-class, discussed on p. 258 ff. But we were brought back to this on subsequent occasions also, especially in dealing with the future p. 477 and the verbal adjective p. 514. It has its analogies outside of Greek, but it is difficult to give the ultimate reason of it.

6) The occurrence of equivalent duplicate forms.

I mean those pairs of groups of forms alike in meaning, formerly distinguished by numbers: aor. 1 and aor. 2. etc. Here there is a similar variety to that in the case of the present stem, though by no means as great. Various parts of the stock of language, of different growth and belonging to different periods were employed for the same service in the verbal system. The decision of the language between the one form and the other defies all rules. Latin has corresponding phenomena in the numerous forms adopted by the perfect, the greatest and least explicable anomaly in the Latin verb, Sanskrit in the diversity of the aorist formation.

7) The intermixture of merely tentative, isolated formations.

To this kind belong the forms in *θ*, examined above p. 500 ff. This consonant creates special anomalies in present, perfect and aorist forms. But the *κ* in some aorist and in numerous perfect stems is also of the same kind, though the origin of the two formations is altogether different. Cp. p. 410 ff.

All these irregularities might be comprehended under the name of *anomalies of formation*. They all occur in a somewhat large number of instances, so that even here within anomaly analogy again displays itself. On the other hand other deviations have more individual causes. The departure from the ordinary course is here due to phonetic processes. This is, if we may say so, a slighter case of sickness, the predisposition to which is present elsewhere too under similar circumstances.

Within this class again we may distinguish seven groups: 397

1) Anomaly through a change of vowel.

This hardly occurs in any other instance than in the inflexion of *πίνω*, which instead of revolving about a single stem as its centre, wavers between the stems *πο* (*πέπωκα, ἐπόθην, ποτός*) and *πι* (*πίνω, πῖθι, ἔπιον, πίομαι*). The Aeolians with their *πώνω, πῶθι* gave the stronger stem, originally *pa*, a wider area. In Princ. i. p. 349 I have proved that both the fuller and the weaker form are found also in other languages beside Greek.

2) Anomaly through a change of consonant.

Here belongs *ἔρχομαι—ἦλυθον—ἐλήλυθα*. The roots *ἐρ* and *ἐλ* unite here in accordance with the well-known close kinship of the softer liquid with the harder. But anomalies of formation make the case still more complicated. Cp. Princ. i. p. 81.

3) Anomaly through a change of vowel and consonant.

Of this kind is *αἱρέω, εἷλον*. Cp. p. 261, Princ. ii. 180. The Cretan *ἀφαιλησέσθαι* on the inscription edited by Bergmann (Berl. 1860) is very instructive. The greatest difficulty is occasioned by the *ι* in the present stem. Perhaps we must assume a present form *ἀμϳω*, which became by epenthesis **αἱρϳω*, and afterwards by the vocalisation of the *ϳ* *αἱρέω*.

4) Anomaly through metathesis.

This appears in the pairs of stems

ϝερ (*εἴρω, ἐρῶ*)	and	*ϝρη* (*ἐρρήθην*)
πετ (Dor. *ἔπετον*)	„	*πτη* (*πεπτηώς*) / *πτω* (*πέπτωκα*)
σεχ (*ἔχ*) *ἕξω, ἔχω*	„	*σχε* (*σχές, ἔσχον*)
σεπ (*ἑπ*) *ἔννεπε*	„	*σπε* (*ἐνι-σπέ-ς*)
σεπ (*ἑπ*) *ἕπομαι*	„	*σπε* (*σπέσθαι*).

5) Anomaly through transformation of *σκ*.

Here belongs once more *ἔρχομαι* because of its *χ*, and also (cp. pp. 192, 197 f.) *πάσχω* and *μίσγω*.

6) Isolated application of reduplication to the formation of the present stems of thematic verbs.

We must dwell for a little on this anomaly, because we have as yet said nothing of it. Six presents belong here, viz.

398 *γί-γνο-μαι*, from Homer (B 468 *γίγνεται*) onwards, in common use, with the by-form *γίνομαι*, which according to La Roche Textkritik p. 220 is the more usual in the M.SS. of Homer, but which is regarded with probability as post-Homeric because of its inferior originality. In Herodotus editors write *γίνομαι* (e.g. iii. 80 *ἐγγίνεται*), and so Tycho Mommsen in Pindar (e.g. Pyth. iii. 13), and after Aristotle, in whom Bekker approves of *γίγνομαι, γίνομαι* is commonly used. For the origin

of the ī cp. p. 193. The other present formation *γείνομαι* was discussed on p. 216.—The parallelism with the Latin *gi-gno* is very noteworthy. In Sanskrit too there are reduplicated forms: *ǵa-ǵan-ti* (3 sing. in grammarians according to the Pet. Dict.).

ἰ-αύω Homeric (e.g. Σ 259 *ἰαύων*), then once in Soph. (Aj. 1204) and Eurip. (Phoen. 1538). The syllable of reduplication extends beyond the present stem in *ἰαῦσαι* λ 261 and *ἰαύσεις* in Lycophron (101), as in the Homeric *διϊδώσω* (cp. above p. 474), while *ἄεσα* for *ἀϝεσα*, discussed on p. 520, is formed from the non-reduplicated stem.

ἴ-σχω, a stronger present form of the rt. *σεχ*, in extensive use from Homer (E 812 *ἴσχει*) onwards.

μί-μνω, a poetical by-form of *μένω*, to which it stands exactly in the relation of *ἴσχω* to *ἔχω*, occurring from Homer (N 747) onwards.

πί-πτω common from Homer (Λ 69) onwards. The poetical by-forms *πίτ-νω*, *πιτ-νέω* have been quoted on p. 184.

τι-τράω coming from *τί-τρη-μι* (quoted on p. 108) by a transition into the thematic conjugation: neither verb occurs before Appian and Galen (Lobeck on Buttmann Ausf. Gr. ii. 304). For *τετραίνω* or *τιτραίνω* cp. p. 217.

Reduplication hence appears as a present strengthening within the thematic conjugation only under quite definite conditions, especially in the inchoative and in the I-class. Of the six verbs just quoted, two follow those forms of the I-class which have an intensive character, *ἰ-αύ-ω* and *τι-τρά-ω* seem to be for **ἰ-αυ-ǰω*, **τι-τρα-ǰω*, and are therefore related to the verbal stems *αυ* and *τρα* just as **γαρ-γαρ-ǰω* (p. 115), **τι-ταν-ǰω*, **τε-τραν-ǰω* (p. 217), **βι-βα-ǰω* (p. 226) to their roots.

To the precisely similar presents *γίγνομαι*, *ἴσχω*, *μίμνω*, *πίπτω* the 399
question attaches itself, whether they, as was long assumed universally, have arisen by syncope from **γι-γενο-μαι*, **μι-μενω*, **πι-πετω*, or not. The expulsion of a vowel like *ε* which is particularly common in the present stem, is, as no one can deny, very surprising. Now if we reflect that from all these stems there are also forms in which the first consonant is in immediate contact with the final consonant, and the vowel follows both, like *-γνη-τος*=Lat. *gnā-tu-s*, *γνή-σ-ιο-ς*, *σχέ-σι-ς*, *σχή-σω*, *σχῆ-μα*, *μνάο-μαι*, *μι-μνή-σκω*, *μνή-μη* (cp. Princ. i. 387), *πε-πτη-ώς*, *πτῶ-μα*, *πτῶ-σι-ς*, it seems to me more probable that metathesis took place here; and that therefore *γί-γνε-ται* differs from a Skt. *ǵa-ǵan-ti* only by this phenomenon, and by its middle form, and so far is the regular present to the aor. *ἔ-γεν-το* discussed on p. 130. For *ἴσχω* the form *σχέ-ς* mentioned on p. 132 and discussed more fully on p. 279, carries great weight, for it can only be explained in this way. We must notice also the forms *ἰ-σχά-νω*, *ἰ-σχα-νάω*, which presuppose an **ἰ-σχα* (cp. pp. 182, 183). On *ἔ-πλε-το* we decided in favour of the same view. Just as in *ἔ-σχο-ν* beside *σχέ-ς* the thematic vowel suppressed the vowel of the root, so the same happened here and made it appear as though a thematic form were present here from the first. With this view the reduplication appears as a relic of the old unthematic method of formation, and thus still better suits *τί-θη-μι*, *δί-δω-μι*, *ἵ-στημι*.

7) Roots fundamentally different, united to form one verb.

This highest degree of anomaly appears only in five verbs, which we may therefore call in the strictest sense mixed verbs: i.e. 3 with two stems, and 2 with three stems.

a) Rt. *ἐδ* with its three-fold, or if we include *ἔδ-μεναι* (cp. p. 104), four-fold present *ἔδω* (Homeric, e.g. *ἔδει* O 636, *ἔδοι* N 322, and here and there in other poets), *ἔσθω*, and *ἐσθίω*, discussed on p. 501, its perfect again with various forms (cp. pp. 368, 415), and its future formed like a
400 present, supplemented by rt. *φαγ*, with the fundamental meaning of participation, enjoyment, recognizable in the Skt. *bhaǵ*. (Princ. i. 370.)

b) Rt. *ϝερ* and *ϝεπ* united in the notion of saying. *ϝερ* in the present *ϝείρω* and *εἰρέω* (p. 213), in the perfect *εἴρηκα* (p. 360), in the future *ἐρέω*, *ἐρῶ*, in the aorist *ἐρρήθην*, with the Herodotean variant *εἰρέθην* and in the verbal adjective *ῥητός*, *ϝεπ* only in *ἔειπον*, *εἶπον* discussed on p. 291. The present, which afterwards becomes obsolete, is replaced by *φημί*, *λέγω*, *ἀγορεύω*, so that really the form of the verbs of saying is still more diversified.

c) Rt. *ϝορ*, rt. *ϝιδ* and rt. *ὀπ*. *ϝορ* has been preserved without further expansion only in *ὄρονται*, *ὄροντο* (cp. p. 144). *ϝορα* must be considered denominative. It is superfluous to give references for the particular forms, for all are in constant use from Homer onwards. The present formation from the rt. *ϝιδ* according to the lengthening class *ϝείδομαι* (cp. p. 153) is also extant. In the perfect all three stems are represented: *ἑώρακα*, *ἑώραμαι* (Attic), *ϝοῖδα*, *οἶδα* in ordinary Greek only in the sense of a present, *ὄπωπα* (poetic). In the future too (*εἰδήσω* beside *ὄψομαι*) two roots compete. I have discussed the anomaly of this verb so fully in Princ. i. 124 that I need not return to it.

d) Rt. *τρεχ* and rt. *δραμ*. Both occur since Homer (Ψ 520, Σ 30). Still the division here too is not at all smooth, for beside the ordinary conjunction *τρέχω* *ἔδραμον* *δέδρομα* (only in poetry) and *δεδράμηκα* *δραμοῦμαι* a poetical aorist *ἔθρεξα* also occurs (*ἐπιθρέξαντος* N 409, *περιθρέξαι* Ar. Thesm. 657) and in Ar. Nub. 1005 *ἀποθρέξομαι*. In this as in the preceding group we can see very plainly how at first the different stems were inflected throughout independently, and how it was only later that, owing to the prevalent use of particular stems in particular tenses, certain branches of each stem died off. The definite union of the stems, which had become defective, in order to supplement each other, is only the last stage in these processes.

e) Rt. *φερ*, stem *ἐνεγκ*, stem *οἰ*. Here the limitation of the first root to the present stem is common to Greeks and Romans, and is therefore doubtless to be regarded as very ancient. Just as certainly is *ἐνεγκ* beside
401 *ἐνεικ* reserved to the aorist (cp. pp. 291, 463) and perfect (cp. p. 407) and *οἰ* to the future *οἴσω*, *οἴσομαι*. The traces of an aorist from the latter stem are weak, and, with the exception of the Homeric *οἴσετε* discussed on p. 461, late. Here therefore the individual stems, which are united into a whole, are the most defective.

The comprehension of this last and highest degree of anomaly evidently leads us beyond what we can call the structure of the verb into the province of etymology and synonymic.

EXCURSUS.

ON SOME RECENT EXPLANATIONS OF THE VOCALISM IN THE THEMATIC AORIST.

(Vol. II². pp. 35–44.)

THE investigations of the Indo-Germanic vocalism, started by Brugman since the completion of the first edition of this work, and pursued zealously by many of our younger scholars, have been noticed once or twice above, e.g. pp. 49, 97 note. These have also led to the attempt to refer what seems the very capricious vocalisation of the thematic aorist to more definite principles. As a certain agreement seems to have been reached on this point among a number of scholars, in spite of by no means inconsiderable differences of opinion on various wide-reaching questions, it seems to me proper to say a few words about it. In doing so, I have set aside altogether the question as to the vocalism of the primitive Indo-Germanic language, and have kept in view in the first place the statement of the case which Fick has given in his essay, 'Zum Aorist- und Perfectablaut' (Bezzenberger's Beiträge iv. 167), as this is the most systematic, and the most decidedly adapted to the Greek language: but I may add that I have read attentively the more important of the other studies bearing on this question, especially those of de Saussure (Mémoire sur le système primitif des voyelles, Leipzig 1879), Kluge (Beiträge zur Geschichte der germanischen Conjugation, Strassburg 1879) and Johannes Schmidt (Ztschr. vol. xxv.).

The thematic aorist is fond, as a rule, of short stem-syllables. Hitherto this short stem-form, compared with that of the present with a long vowel or diphthong (*φυγεῖν φεύγειν*), has been considered the more primitive, while the heavier form of the present has been held to be due to intensification. Fick and others invert this relation, starting from the heavier present form, and regarding the lighter form of the aorist as weakened from it. He thus really revives the view of the ancient grammarians, who always regarded the 1 sing. pres. act. as the *πρώτη θέσις*. This acute scholar attempts to defend his starting-point historically also by some general considerations. That the structure of the verb started with the present is my own view also, on which this book is based. But it does not at all follow from this that a particular, and in this case the heavier, present form must be older than the stem-form of the thematic aorist. As *δίδωμι* was preceded by an obsolete **δῶμι*, so *φεύγω* may have been preceded by an older **φύγω*, formed on the analogy of the sixth class of

Sanskrit verbs. It was only the opposition between the lighter and the heavier form which could call forth the difference of meaning between present-imperfect and aorist. In the same way we can understand the thematic vowel in the aorist in accordance with the explanation which I have attempted: for if the aorist stem was originally a kind of present stem, it was just as capable of receiving this vowel as the heavier kind.

The chief advantage, according to Fick's view, seems to lie in the fact that he thinks he can point out one single definite motive for the weakening which he assumes, viz. the accentuation. In this he follows an explanation first suggested by Benfey in Orient und Occident iii. 65. Greek indeed shows the tendency to accentuate the final syllable in the aorists only to a very limited extent, i.e. in the participle of the active, in the infinitive of the active and middle, in the 2 sing. of the middle imperative of all verbs, and in that of the active of five especially common ones: ἰδέ, λαβέ etc. But in Sanskrit, in the evidently cognate sixth class of presents (*tudá ti*=Lat. *tundit*), the chief accent always falls upon the thematic vowel of all non-augmented forms, and the same holds good of the corresponding aorist, e.g. *vidá-t*=*ϝίδε* beside *á-vida-t*=*εἶδε*. It is almost exclusively in the participle, e.g. nom. plur. *vidántas* =*ϝιδόντες* that the two languages quite agree. It is certainly surprising here that precisely those aorist forms, which might have been regarded as the proper sphere for the establishment of the phonetic form, the augmented forms of the indicative, nowhere show the slightest trace of the accentuation of the final syllable. If therefore we refer the short vowels and the rejections of the vowel to be mentioned presently (σπεῖν beside ἔπειν) to the accentuation of the final syllable as the *causa movens*, we must assume either that these shortenings extended from what we cannot but regard (especially in the earliest time) as the much less common moods, participles or even infinitives, or that as in Sanskrit, so even in the primitive Indo-Germanic language there was a system of light forms, not without a present indicative also, in which this operation of the accentuation of the final syllable took shape. Fick's conjecture that the short vowel along with the accentuation of the final syllable was originally proper to the dual and plural forms only (**φυγόμεν*, **φυγέτε* beside *φεύγω*, *φεύγεις*) is without any support from facts. We cannot show that the vowel of the stem varied under the influence of the personal endings except where they were attached immediately, as in the verbs in *μι* (Skt. *émi*, *imás*, *véda*, *vidmá*, Gr. οἶδα ἴδμεν). We see therefore that this principle of explanation does not settle the question so very simply and beyond all doubt. I do not wish to deny that there is any connexion between the aorist forms with a short vowel, and the accentuation of the final syllable:—the forms in which the two are united are too numerous for that:—but it seems to me by no means proved as yet that the accent was the *prius* and the short vowel the *posterius*. But if even the *post hoc* is not established, much less can we regard the *propter hoc* as proved. We have also, as Misteli (Ztschr. f. Völkerpsychologie xi. 234 f.) has recently pointed out, to take into careful consideration the manner in which we must conceive of the Indo-Germanic accent, whether it was rather musical or in the nature of a stress. Cf. Verner Ztschr. xxiii. 115. It is only after scholars have attempted to state connectedly the conclusions to which they believe

they can arrive as to the accentuation of the primitive language, that we shall be able to decide more positively as to such ultimate questions.

From the pre-supposed original accentuation, Fick, carrying out consistently his view, which always starts from the present stem, arrives at the following effects[1]:—

1) ᾱ ῑ ῡ of the present stem are shortened into ᾰ ῐ ῠ.

In the present stem ῑ and ῡ are so rare, that we really have only to consider the relation of ᾱ (Ionic η) to ᾰ: κε-κᾰδ-εῖν beside κήδ-ειν.

2) The ε of the root in the present is rejected in the aorist.

The number of these instances, like κέλομαι ἐ-κέ-κλε-το is extremely small. We cannot admit that εἶπον belongs here. Fick traces it back to *ἐ-Fε-Fπο-ν. But the combination Fπ is exceedingly improbable. Hence with the exception of ἐκέκλετο there remain only the forms discussed on p. 279, which I explained otherwise, and ἐνεγκεῖν, if we derive this with Fick from ἐν-ενεκ-εῖν. The same loss of vowel however appears also in μίμνω, γίγνομαι. Are we here too to lay down a *μιμνῶ, *γιγνόμαι?

3) Under the same category 'rejection of the ε of the root' Fick brings the reduction of the diphthongs ει and ευ to ι and υ, which necessarily results from his point of view: λείπειν λιπεῖν, κεύθειν κυθεῖν. Considered purely arithmetically this is correct; as in κέ-κλ-ε-το so in λιπεῖν as against the present λείπειν we have to note the subtraction of an ε; but for the ear, that is, for the living language, there is a very great difference between a vowel which drops out from between the surrounding consonants, that is to say, disappears altogether through the intermediate stage of an irrational vowel, and one which, originally united with a second vowel into the unity of the same syllable, then disappears before it. It would have been thought that this union, which was no loose one, must have preserved it. The young generation of philologists delights in warning us against constructions 'which can only cut a good figure on paper,' and points to the living languages as a principal source for the discovery of what is possible and real in language. Provided that we do not recklessly mix up the distinctive characters of particular languages and periods of language, I am entirely at one with them.[2]

[1] Fick includes in his discussion the vocalism of the strong passive aorist. But as these forms are specifically Greek it is better to omit them in questions as to the primitive Indo-Germanic vocalisation, of which relics present themselves in the thematic aorist.

[2] I may remark in passing that it seems to me an unfounded charge against the older generation that they slighted the importance of the living languages. To say nothing of others, I will mention only Schleicher, who possessed the most extensive knowledge of living languages, and made abundant use of them, especially in relation to Zetacism, [cp. also his comprehensive treatise 'Die Sprachen Europas'], and Ascoli, who is probably surpassed by no living scholar in this respect. The doctrine of Bopp as to the 'degeneration' of sounds in the course of the history of language is based essentially on the views which resulted from a comparison of Gothic and Old High German full-sounding vowels with the half-mute *e* of the Modern High German, and the reduction of Latin sounds in the Romance languages, especially in French. The explanation of the *s* in verbal forms from the rt. *as* would never have been suggested, had it not been for the knowledge that auxiliary verbs were so employed in modern languages. The case is the same with the reference of the personal endings to the stems of the personal pronouns. In my 'Principles' I have everywhere taken pains to illustrate phonetic processes in Greek from living languages; and this has not been neglected in the present work either.

Some scholars, in attacking the old doctrine of 'the intensification of vowels,' have made merry over the 'jumping in' of an *a* into the heart of the words. But Misteli (Ztschr. f. Völkerps. xi. 234 ff.) is right, I think, in regarding the 'jumping out' of an *a* or *e* as not at all more conceiveable. It would be desirable that some one should point out to us a good many indubitable instances of this process from that much recommended medicinal spring of the living languages. For the reverse of this phenomenon, the raising of *i* and *u* to *ei* and *eu*, we have at least one certain instance in our modern High German diphthongs, to which I have already called attention in my essay 'Comparative Philology in its relation to Classical Scholarship.' That in a syllable brought into emphatic prominence (cp. p. 37 note), the original short vowel was raised to a long one, that *i* was raised to *ei*, *u* to *eu* seems to me quite as conceiveable as the 'jumping out.' In any case this new theory, which might be called the 'descending theory,' leads to very extensive consequences, viz. to the proof that all instances of *i* and *u* in the primitive language are weakenings. A word like the Skt. *svādú-s*, which does not fit into the system at all, or like *íti* so, which looks like a very simple and sound word, must have already undergone the greatest alterations—shall we say from **ajataja*?—under the pressure of changing accentuation. And is there any living language whatever which knows of *i* and *u* only in diphthongal union? Such a view could in any case only acquire a hint of probability by means of the most comprehensive rhizogonic, phonogonic, and tonologic investigations, which far exceed in audacity and exuberance of hypotheses views which are now in some quarters, but not by Fick, usually treated with irony as 'glossogonic.'

4) 'If the rejection of the ε of the present,' Ficks goes on to say, 'produces before and after liquids unpronounceable groups of sounds in the aorist stem, the liquids become sonant, and the vowels ρ λ and ν arise. These appear in Greek as αρ=ρα, λα and α.' In the same way an unpronounceable group, which was to be expected, e.g. κτν is 'split by α,' that is to say, in the case of κτανεῖν, α is developed as an anaptyctic vowel; in the same way ταμεῖν instead of the *τμεῖν to be expected. This view of the α so common in the aorist stem, in which many scholars now agree, perhaps contains a fruitful result. We shall come back to this again.

On the other hand the following objections to the general view here stated force themselves upon us. We should thus be compelled to presuppose for every aoristic form a corresponding present as a 'mother-form' (Fick says 'basis') with a long vowel, diphthong or *e*-sound, hence e.g. for ἀρέσθαι *ἤρεσθαι, for λιτέσθαι *λείτεσθαι, for θιγεῖν *θείγειν, for βαλεῖν *βέλειν or *βήλειν, for θανεῖν *θενεῖν. The two classes of the thematic present formation, which I give as the first and the second,—of the first, however, only those with ε in the stem-syllable—would be, so to speak, the only normal ones; there would only have been presents like λέγω or φεύγω. This view suits very ill the actual stock of present forms in Sanskrit and Greek. Our survey proves that a much greater multiplicity prevailed. The variety of the present as contrasted with the uniformity of most other tenses is, I believe, a *character indelebilis* of the structure of the Indo-Germanic verb. We only get to the present forms of the I- and of the nasal class from stems with short vowels.

We can understand λίσσομαι only from λιτ, ἄλλομαι only from ἀλ, δάκνω only from δακ. How these forms fit into Fick's system it is not easy to see. In any case there can have been no lack of the 'mutilations' to which many investigators have now such a dislike. As Fick actually assumes disyllabic stems φυγε, φενγε, he gets an almost infinite number of instances of syncope. Forms like πίστις, πέπιθμεν, ἔδειξα must have lost not only the half of the diphthong proper to their stems, but also by syncope the final vowel of the 'basis': and who can tell whether ἐσ-τί will be left to us? How does a man propose to make such hypotheses appear probable, and how can any one expect them to receive assent, so long as it is not shown in the remotest degree how the facts of the language are to be explained with such views? But let us return to the aorist. Among the non-reduplicated forms, of which we enumerated 118, the proposed rule as to the vowel suits 29, viz. ἁδεῖν (ἥδομαι), βρυχεῖν, δάηται (δήω), δρακεῖν, δραπών, ἐρικεῖν, ἐριπεῖν, ἐρυγεῖν, ἰδεῖν, ἱκέσθαι (if we start from the Doric εἵκω), κυθεῖν, λαθεῖν, λιπεῖν, παρδεῖν,[3] πιθεῖν, ἄμ-πνυε, πραθεῖν, πτέσθαι, πυθέσθαι, the two-fold σπεῖν, στιχεῖν, σχεῖν, ταρπώμεθα, τμαγεῖν, τραπεῖν, τραφεῖν, τυχεῖν, φυγεῖν, while 89 aorists cannot be explained without the aid of unheard-of present stems invented *ad hoc* of the kind noticed above. We recognised 41 reduplicated aorists. Of these 12 fit the rule, e.g. κεκαδεῖν, κεκύθωσι, λέλαθον, 29 do not.

But further, the originator of this view has himself not failed to notice that a part of the aorists here coming into consideration stand quite outside of his rule, viz. those with an ε in the stem. We have indeed noticed already (p. 279) that this vowel is the normal one for the present. Still there are 17 aorists with ε left, like γενέσθαι, ἐρέσθαι, τεκεῖν, τεμεῖν (beside ταμεῖν), ἐλεῖν. These Fick regards as present forms, which were only later on fitted into the system of the aorist, and subjected to the aoristic rule of accentuation. A view like this attracts me much more than the attempt, so much favoured by other investigators, to explain the abnormal vowel by means of so-called 'inclinations.' To what present are we to suppose that γενέσθαι and ἐλεῖν inclined? If the Greeks retained the instinctive feeling that ε suited the present, and α the aorist, I do not understand how in particular instances without any recognizable reason by the mere play of chance the abnormal form could creep into the place of a normal form once extant. But I can understand very well that forms existing at an early date, like *γένεσθαι, *τέμειν, *ἔλειν assumed the force and accentuation of aorists in contrast to other forms. Even the participles ἰών, ἑών, ἑκών in which the force of a present still survives, have shifted their accent. The ο in θορεῖν, ὀλέσθαι is certainly to be taken in the same way.

The thematic aorist remains therefore, even according to Fick's way of representing it, a tense-group which did not spring up at once, but like so much else in the language, was formed by degrees from the union of elements of various kinds. The present is not distinguished from the aorist by any absolutely certain criterion. As there are abnormal aorists with ε, so there are presents with α. For in forms like ἄγω=Skt. *ágāmi* Lat. *ago*, ἄρδω, ἄρχω, βλάβω, γράφω, μάχομαι, we

[3] [i.e. πραδεῖν. Cp. ἔ-πραδ-ε-ς Hesych. iii. p. 164 Mor. Schmidt in the Doric verse: νῦν δ' ἥνθες ἐς χορὸν (MS. ἥνθες δεχωρον) νῦν δ' ἔπραδες (Fick, Bezzenb. Beitr. iv. 173).]

cannot help regarding this vowel as a primitive one. And therefore I cannot see that as yet the view has been by any means refuted that an aorist like τραπεῖν differs no more from an Ionic present τράπειν than ἐλεῖν from the presupposed present *ἔλειν, and that therefore in every case the aorist sprang first from the contrast with a fuller present formation deviating in some way from it.

But it is certainly noteworthy that the *a* is so extremely common in the aorist, so rare in the present. Out of 116 thematic aorists, 54 have *a*. According to the older view *a* was regarded as absolutely a heavier vowel than *ε*. How does this heavy vowel come so extensively into a system, which elsewhere loves light vowels. If we could succeed in referring λαχεῖν to the same principle as λιπεῖν, φυγεῖν, as Fick attempts to do, the 54 forms with *a* added to the 32 with *ι* and *υ* would give 86 forms which follow the same rule. To this extent I do not now reject the new view which has been expressed in so many quarters. I would formulise it thus: *ă* is in Greek not everywhere the same sound. By the side of the full sounding *a* of *ἄγω*, *ἀπό*=Skt. *ápa*, which I continue to regard as primitive, there is an *a*, which I might call the *weak a*. This latter has partly sprung as an anaptyctic vowel, just as in *ἀμείβω*, *ἀμέλγω*, *ἀλείφω*, from the vocalic element in a liquid or a nasal, as in *ταμεῖν* beside *τε-τμεῖν*, partly arises from a minimal vowel of the same nature as that heard in the Indian *ṛ*-vowel, as in *ἔ-δρακο-ν*, which now seems quite identical with *á-dṛça-m*, just as *βραδύ-ς* answers to the Sanskrit *mṛdú-s*. The peculiarity of Greek lies in the fact that this minimal vowel assumed the colour of the *a*, just as *a* is always a favourite sound in conjunction with those consonants. I do not see any decisive reason for assuming for Greek or for a preliminary stage to Greek syllable-forming nasals and liquids: I hold it rather the more reasonable course with Kluge and Joh. Schmidt to regard these deduced sounds as groups, consisting of a minimal vowel, which Schmidt denotes by a small *a*, and the consonant concerned; thus *δαρκεῖν*, later *δρακεῖν*. That creations like *mn̥tos* (with the so-called *n* sonans), *bharn̥ts* (= *bharantas*), *tr̥ns* (Lat. *trans*), *tn̥nutai* (Gk. *τάνυται*) ever existed anywhere but on paper—which is in truth very long-suffering—I shall refuse to believe, until some one has discovered a living language, in which sounds of this kind accented as well as unaccented are pointed out to such an extent and in such complicated groups of consonants. At the end of the syllable the nasal disappeared altogether after this *a*, just as indeed we find the same disappearance after the full-sounding vowels *ε*, *ο*, e.g. *ἐς* for *ἐν-ς* beside *εἰς*, in the Doric acc. pl. e.g. in *καλός*= *καλόν-ς* Att. *καλούς*, and in *δαίμοσι*, *ποιμέσι*. Hence the fact which was established from the very beginning of comparative philology, that a Greek *a* commonly corresponds to the syllables *am*, *an*, Lat. *em* etc. in the cognate languages: *ἑπτά*=septem, *ἑ-κατόν*=*centum* etc. In verbal forms the *a* of the 1 sing. in *ᾶμι*, *ᾶμαι*, of the 3 plur. act. in *τιθέασι* and of the 3 plur. mid. in *αται*, *ατο*, with the *a* of *κατέκτα*, *κατακτάμεναι* is to be taken in the same way.

Certainly it might often be difficult to draw the line between the weak *a*, and the full-sounding *a*, which cannot be got rid of. There are questions enough remaining here. But it is possible to adopt the recently gained insight into the origination of the *a*, without therefore agreeing with all these hypotheses as to *n sonans* etc. and as to the

accent as the impelling force for all abbreviations. Everywhere in the science of language it is better not to wish to finish off everything at once. I content myself with the knowledge that an aorist stem with *a* before the consonants mentioned e.g. δρακεῖν, πραθεῖν is the weak stem-form beside that with ε in the present, e.g. *δέρκειν, πέρθειν. In opposition to the radical view that of different forms running parallel, one must be always the older, the other the later, I often prefer to assume from the beginning cognate duplicate forms, the use of which only by degrees became defined the one from the other, as they did here in such a way that the heavier forms took the durative function, while the lighter came to denote momentary action. The appeal to living languages and dialects certainly favours this view. For there is probably no living language, nor even any popular dialect, in which all wavering between fuller and shorter, heavier and lighter forms is absolutely excluded. But hereby too something is gained, in that the forms with *a* now take their place better in the analogies of the aorists with *ι* and *υ*. Wherever the realm of caprice and chance in language is limited, we have to regard this as a gain.

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